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UNITED STATES DEPARTMENT OF COMMERCE
OFFICE OF TECHNICAL SERVICES

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OF SCIENTIFIC AND INDUSTRIAL REPORTS

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In addition to the indexes described on the back cover of this Bibliography, the Office of Technical Services has published the following reference works:

PB L 81500. HOLLOWAY, O. WILLARD and ISAAC, OLIVER B. Classified list of OTS printed reports: A list of reports on German and Japanese technology prepared by American investigators which are available in printed form from the Office of Technical Services. Oct 1947. 59 p. Price: 75¢

PB L 78000. LOWRY, W. KENNETH. OSRD reports: Bibliography and index of declassified reports having OSRD numbers. Jun 1947. 105 p. Price: 75¢

PB L 58101-R. SWIFT, GRACE. Government document series, analyzed by Office of Technical Services. Rev. Nov 1947. 45 p. Price: 25¢

PB L 79322. SWIFT, GRACE and OHNE, JERROLD. Subject headings for technical libraries. Jun 1947. 167 p. Price: $1.50

PB L 81803. U. S. OFFICE OF TECHNICAL SERVICES, TECHNICAL INDUSTRIAL INTELLIGENCE DIVISION. Reports resulting from the investigation of German technology, 1945-1946, and index of personnel. May 1947. 207 p. Price: $5.25

PB 70300, abstracted in v. 5, p. 1035, has been changed from 959 frames to 1341 frames with a price change for enlargement prints from $96.00 to $134.50. Items available only at an enlargement print price for this same PB number are changed from $41.50 to $42.00 for frames 28430-28843; from $7.00 to $6.00 for frames 28844-28902; and from $48.00 to $87.50 for frames 28903-30659.

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CHEMICALS AND ALLIED PRODUCTS

Drugs and Pharmaceuticals

PB L 81828. BOCKMUHL. Synthesis of progesteron. Supplementary report for preparation of phytosterol acetate. (JIOA Rept 53) n. d. 3 p. Price: Micro-25¢
The method given is that of the Hoechst Farbwerke via phytosterol from plant sources.

PB L 74802. I.G. FARBENINDUSTRIE A.G. Report on pharmaceuticals. (FIAT Microfilm Reel N 91, Frames 822-1852) 1937-1944 1030 f. Price: Microfilm-$6.00 - Enlargement Print-$103.00
This FIAT microfilm reel contains 136 items dealing with the production and testing of various pharmaceutical preparations and plant protectives, such as vitamins. Individual items are listed below and will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

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822-823 PB L 74802	These frames are illegible.	
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1025-1039 PB L 74802	"Germanin"-"Bayanol" (urea of sodium m-aminobenzoyl-m-amino-p-toluyl-1-aminonaphthalene-4,6,8-trisulfonate). In German.	1.50
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Drugs and Pharmaceuticals (contd)

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1088-1092 PB L 74802 — "Aethylomester M" (diemthylester of ethylphenylmalonic acid). In German. 1.50

1093-1113 PB L 74802 — Preparation of "A.T. 10" and vitamin D_2. In German. 2.50

1114-1122 PB L 74802 — Preparation of "Avertin". Difficult to read. In German. 1.50

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1777-1852 PB L 74802 Monthly reports concerning the synthesis of various pharmaceutical preparations including anthelmintics and vitamin B_6. In German. 8.00

PB L 74930. SCHERING A. G., BERLIN. Reports on organic and inorganic chemicals. (FIAT Microfilm Reel W-46, Frames 1949-2724) 1919-1944. 776 F.
Price: Microfilm-$6.00 - Enlargement print-$78.00 .
This FIAT microfilm reel contains instructions for the production and testing of pharmaceutical preparations and their starting products. 344 individual items are listed below and willbe available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this mic rofilm reel. In German.

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Drugs and Pharmaceuticals (contd)

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2071 PB L 74930 Thallium sulfate. In German. 1.50

2072 PB L 74930 Black liquid for thermometers. In German. 1.50

2073 PB L 74930 Ammonium thiocarbamate. In German. 1.50

2074 PB L 74930 Thioglycolic acid. In German. 1.50

2075 PB L 74930 Thioacetic acid. In German. 1.50

2076-2080 PB L 74930 Correspondence and apparatus concerning thioglycolic acid. In German. 1.50

2081 PB L 74930 Thiolactic acid. In German. 1.50

2082 PB L 74930 Thionyl chloride. In German. 1.50

2083-2084 PB L 74930 Thiophene. In German. 1.50

2085 PB L 74930 Thiophosgene. In German. 1.50

2086 PB L 74930 Thiosalicylic acid, very pure. In German. 1.50

2087 PB L 74930 Thiosinamine. In German. 1.50

2088 PB L 74930 Thorium chloride. In German. 1.50

2089-2092 PB L 74930 Thymolphthalein. In German. 1.50

2093 PB L 74930 Thymol sulfonphthalein ("Thymolblau") In German. 1.50

2094 PB L 74930 Titanium sulfate. In German. 1.50

2095 PB L 74930 Potassium titanate. In German. 1.50

2996 PB L 74930 Sodium titanate. In German. 1.50

2097-2098 PB L 74930 Titanium sulfate. In German. 1.50

2099-2100 PB L 74930 Titanium tetrachloride. In German. 11.50

2101 PB L 74930 Titanium trichloride, 15% solution. In German. 1.50

2102 PB L 74930 Toluquinone. In German. 1.50

2103 PB L 74930 o-Tolunitrile. In German. 1.50

2104 PB L 74930 m-Tolunitrile. In German. 1.50

2105-2106 PB L 74930 p-Tolunitrile. In German. 1.50

2107-2108 PB L 74930 Toluene sulfamide. In German. 1.50

2109 PB L 74930 Toluene sulfochloride. In German. 1.50

2110 PB L 74930 p-Toluenesulfonic acid. In German. 1.50

Drugs and Pharmaceuticals (contd)

2111 PB L 74930 — Sodium p-toluenesulfonate. In German. 1.50

2112-2113 PB L 74930 — p-Toluylenediamine hydrochloride. In German. 1.50

2114 PB L 74930 — o-Toluic acid. In German. 1.50

2115 PB L 74930 — m-Toluic acid. In German. 1.50

2116-2117 PB L 74930 — o-Tolylhydrazine. In German. 1.50

2118 PB L 74930 — m-Tolylhydrazine. In German. 1.50

2119 PB L 74930 — p-Tolylhydrazine. In German. 1.50

2120 PB L 74930 — o-Tolylsulfourea. In German. 1.50

2121 PB L 74930 — Methylracemate. In German. 1.50

2122 PB L 74930 — Sodium racemate. In German. 1.50

2123 PB L 74930 — Triacetin. In German. 1.50

2124 PB L 74930 — Triethylamine hydrochloride. In German. 1.50

2125-2126 PB L 74930 — Triethylphosphine. In German. 1.50

2127- PB L 74930 — 1, 2, 4, 6-Tribromoaniline. In German. 1.50

2128 PB L 74930 — Tribromoacetic acid. In German. 1.50

2129 PB L 74930 — Tribromohydrin. In German. 1.50

2130-2131 PB L 74930 — Tribromo- β - naphthol, commercial product. In German. 1.50

2132 PB L 74930 — Tributyrin. In German. 1.50

2133 PB L 74930 — Tricaproin. In German. 1.50

2134 PB L 74930 — Tricarballylic acid. In German. 1.50

2135 PB L 74930 — Trichloroacetyl chloride. In German. 1.50

2136 PB L 74930 — Ethylene trichloride. In German. 1.50

2137 PB L 74930 — Trichloroethylene. In German. 1.50

2138 PB L 74930 — Trichlorobutyric acid. In German. 1.50

2139-2140 PB L 74930 — Tert. trichlorobutylalcohol. In German. 1.50

2141 PB L 74930 — Trichloroacetic acid. In German. 1.50

2142 PB L 74930 — Trichloroacetic acid, D. Ap. V. from chloral. In German. 1.50

2143 PB L 74930 — Ethyl trichloroacetate. In German. 1.50

2144 PB L 74930 — Potassium trichloroacetate. In German. 1.50

2145-2146 PB L 74930 — Sodium trichloroacetate. In German. 1.50

2147 PB L 74930 — Trichlorohydrin. In German. 1.50

2148-2149 PB L 74930 — Trichlorolactic acid. In German. 1.50

2150 PB L 74930 — Trichlorophenol. In German. 1.50

2151 PB L 74930 — Tricresylphosphate for commercial purposes. In German. 1.50

2152-2154 PB L 74930 — Anhydrous trimethylamine. In German. 1.50

2155 PB L 74930 — Trimethylamine hydrochloride in solution, crude. In German. 1.50

2156-2157 PB L 74930 — Trimethylene bromide. In German. 1.50

2158 PB L 74930 — 1, 3 , 2, 4, 6-Trinitrocresol. In German. 1.50

2159 PB L 74930 — 1, 3, 2, 4, 6-Trinitroresorcinol. In German. 1.50

2160 PB L 74930 — Triolein. In German. 1.50

2161 PB L 74930 — Trioxinidomethylene. In German. 1.50

2162 PB L 74930 — Tripalmitin. In German. 1.50

2163-2164 PB L 74930 — Triphenylcarbinol. In German. 1.50

2165-2166 PB L 74930 — Triphenylchloromethane. In German. 1.50

2167 PB L 74930 — Triphenylguanidine. In German. 1.50

2168-2169 PB L 74930 — Triphenylmethane from benzalchloride. In German. 1.50

2170-2171 PB L 74930 — Triphenylmethane. In German. 1.50

2172-2174 PB L 74930 — Triphenylphosphate, commercial product. In German. 1.50

2175 PB L 74930 — Triphenylphosphine. In German. 1.50

2176 PB L 74930 — Tristearin. In German. 1.50

2177 PB L 74930 — Triiodoformaldehyde. In German. 1.50

2178-2179 PB L 74930 — Perchloric acid, pure, for analysis. In German. 1.50

2180-2181 PB L 74930 — "Oenanthol" Undecylenic acid. In German. 1.50

2182-2183 PB L 74930 — Periodic acid. In German. 1.50

2184-2185 PB L 74930 — Perchloric acid. In German. 1.50

2186 PB L 74930 — Undecylenic acid. In German. 1.50

2187 PB L 74930 — Uranic acid. In German. 1.50

2188 PB L 74930 — Uranium tetrachloride. In German. 1.50

2189 PB L 74930 — Uranyl chloride. In German. 1.50

Drugs and Pharmaceuticals (contd)

2190 PB L 74930 — Uranyl potassium sulfate. In German. 1.50

2191 PB L 74930 — Uranyl nitrate, anhydrous product. In German. 1.50

2192 PB L 74930 — Valeraldehyde cyanohydrin. In German. 1.50

2193 PB L 74930 — Valeranilide. In German. 1.50

2194 PB L 74930 — Normal - valeric acid. In German. 1.50

2195-2200 PB L 74930 — Isovaleric acid. In German. 1.50

2201 PB L 74930 — Normal - valero nitrile. In German. 1.50

2202 PB L 74930 — Isovaleronitrile. In German. 1.50

2203 PB L 74930 — Isovaleryl chloride. In German. 1.50

2204 PB L 74930 — Vanadium tetraoxide. In German. 1.50

2205 PB L 74930 — Vanadium trioxide. In German. 1.50

2206-2207 PB L 74930 — Veratrole. In German. 1.50

2208 PB L 74930 — Vinyl bromide. In German. 1.50

2209 PB L 74930 — "Vulkaform P" (piperidine dithiocarbamate) In German. 1.50

2210 PB L 74930 — Wax cement. In German. 1.50

2211 PB L 74930 — Ethyl tartrate. In German. 1.50

2212 PB L 74930 — Potassium ammonium tartrate. In German. 1.50

2213 PB L 74930 — Potassium sodium tartrate "Kalbaum". In German. 1.50

2214 PB L 74930 — Sodium ammonium tartrate. In German. 1.50

2215 PB L 74930 — Silver tartrate. In German. 1.50

2216 PB L 74930 — Bismuth in rods. In German. 1.50

2217 PB L 74930 — Bismuth bromide. In German. 1.50

2218 PB L 74930 — Bismuth chloride, crystallized. In German. 1.50

2219 PB L 74930 — Anhydrous bismuth chloride. In German. 1.50

2220 PB L 74930 — Anhydrous bismuth iodide. In German. 1.50

2221 PB L 74930 — Bismuth iodide, precipitated. In German. 1.50

2222 PB L 74930 — Bismuth potassium iodide. In German. 1.50

2223 PB L 74930 — Bismuth nitrate cryst., U. A. P. 5 In German. 1.50

2224-2225 PB L 74930 — Bismuth hydroxychloride. In German. 1.50

2226 PB L 74930 — Bismuth oxide. In German. 1.50

2227 PB L 74930 — Tungsten, purified. In German. 1.50

2228-2229 PB L 74930 — Tungsten hexachloride. In German. 1.50

2230-2233 PB L 74930 — Anhydrous tungstic acid "Kahlbaum" from crude tungstic acid or metallic tungsten. In German. 1.50

2234 PB L 74930 — Calcium tungstate, precipitated. In German. 1.50

2235-2236 PB L 74930 — Calcium tungstate, calcined, for screens. In German. 1.50

2237 PB L 74930 — Xanthone. In German. 1.50

2238-2240 PB L 74930 — Xanthydrol. In German. 1.50

2241-2242 PB L 74930 — 1, 3, 4-Xylenol. In German. 1.50

2243-2244 PB L 74930 — 1, 3, 4-Xylidine. In German. 1.50

2245 PB L 74930 — 1, 3, 4-Xylidine acetate. In German. 1.50

2246 PB L 74930 — Synthetical cinnamic acid, D. Ap. V. In German. 1.50

2247 PB L 74930 — Cinnamic anhydride. In German. 1.50

2248 PB L 74930 — Cinnamic acid chloride. In German. 1.50

2249 PB L 74930 — Ethyl cinnamate. In German. 1.50

2250 PB L 74930 — Benzyl cinnamate. In German. 1.50

2251 PB L 74930 — Methyl cinnamate. In German. 1.50

2252-2253 PB L 74930 — Zinc ethyl, crude. In German. 1.50

2254 PB L 74930 — Zinc bromide. In German. 1.50

2255 PB L 74930 — Zinc chromate. In German. 1.50

2256 PB L 74930 — Zinc cyanide. In German. 1.50

2257 PB L 74930 — Zinc ferricyanide and paste. In German. 1.50

2258 PB L 74930 — Zinc fluoride. In German. 1.50

2259 PB L 74930 — Zinc iodide. In German. 1.50

2260-2261 PB L 74930 — Zinc methyl, crude. In German. 1.50

2262 PB L 74930 — Zinc phosphite. In German. 1.50

2263 PB L 74930 — Zinc pyrophosphate. In German. 1.50

2264 PB L 74930 — Zinc silicofluoride. In German. 1.50

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Drugs and Pharmaceuticals (contd)

2265 PB L 74930 — Zinc sulfate, dehydrated. In German. 1.50

2266-2267 PB L 74930 — Tin ("Kahlbaum") wool (Mossytin). In German. 1.50

2268 PB L 74930 — Tin bromide (Stannic bromide). In German. 1.50

2269 PB L 74930 — Tin chloride, anhydrous (Stannic chloride) In German. 1.50

2270 PB L 74930 — Tin monochloride, solution D. A. B. 5 (Stannous chloride, solution). In German. 1.50

2271 PB L 74930 — Stannic iodide. In German. 1.50

2272-2273 PB L 74930 — Stannous iodide. In German. 1.50

2274 PB L 74930 — Stannous oxide. In German. 1.50

2275 PB L 74930 — Tin phosphate. In German. 1.50

2276 PB L 74930 — Anhydrous stannic acid. In German. 1.50

2277-2278 PB L 74930 — meta-Stannic acid. In German. 1.50

2279 PB 74930 — Stannous sulfate - tin monoxide. In German. 1.50

2280 PB L 74930 — Lactonic acid from saccharic acid. In German. 1.50

2281 PB L 74930 — Saccharic acid, 50% solution. In German. 1.50

2282 PB L 74930 — Acidic potassium saccharate. In German. 1.50

2283-2289 PB L 74930 — Cadmium dyes. In German. 1.50

2290-2291 PB L 74930 — Aurantins. In German. 1.50

2292 PB L 74930 — Substitute for antiformin. In German. 1.50

2293-2295 PB L 74930 — Direction for preparing a substitute for fish glue "Le Page". In German. 1.50

2296-2320 PB L 74930 — Concerning the production of atophan and novatophan. In German. 3.00

2321 PB L 74930 — Collodium for lithographic purposes. In German. 1.50

2322-2324 PB L 74930 — Collodium for photographic purposes. In German. 1.50

2325 PB L 74930 — Collodium for histological tables In German. 1.50

2326-2331 PB L 74930 — Collodium for technical and pharmaceutical purposes. In German. 1.50

2332 PB L 74930 — Collodium solutions in esters. In German. 1.50

2333-2340 PB L 74930 — Types of collodium for rapid polishing. In German. 1.50

2341-2403 PB L 74930 — Operating instructions for collodium. In German. 7.00

2404-2406 PB L 74930 — Contrast soles. In German. 1.50

2407-2408 PB L 74930 — Suberic acid and azelaic acid. In German. 1.50

2409-2417 PB L 74930 — "Kryolosan". In German. 1.50

2418-2453 PB L 74930 — Peptic ferments. In German. 4.00

2454 PB L 74930 — Amyl phenylmethylglycidate. In German. 1.50

2455-2459 PB L 74930 — "Ergotitrin". In German. 1.50

2460-2463 PB L 74930 — Acetic ether. In German. 1.50

2464-2469 PB L 74930 — Rucsine B. In German. 1.50

2470 PB L 74930 — Eucanol methylether. In German. 1.50

2471-2479 PB L 74930 — Ophthalmin. In German. 1.50

2480 PB L 74930 — Extract of filix. In German. 1.50

2481-2482 PB L 74930 — Glycidol ester of ionone. In German. 1.50

2483-2493 PB L 74930 — Folinerin. In German. 1.50

2494-2503 PB L 74930 — Fortamin B. In German. 1.50

2504 PB L 74930 — Galacol jelly. In German. 1.50

2505 PB L 74930 — Glass etching solution. In German. 1.50

2506-2508 PB L 74930 — Acrolein. In German. 1.50

2509-2510 PB L 74930 — Acrolein acetal. In German. 1.50

2511-2512 PB L 74930 — Glycerol aldehyde diethylacetal. In German. 1.50

2513-2514 PB L 74930 — Hexonon. In German. 1.50

2515 PB L 74930 — "Helefer Granules". In German. 1.50

2516-2517 PB L 74930 — "Hepamult". In German. 1.50

2518-2521 PB L 74930 — "Jucundal". In German. 1.50

2522 PB L 74930 — Potassium tetranitrodiamine cobaltiac. In German. 1.50

2523 PB L 74930 — Lactonitrile. In German. 1.50

2524-2538 PB L 74930 — Musc "Ambrettes". In German. 1.50

2539-2540 PB L 74930 — "Muscosyn". In German. 1.50

2541-2543 PB L 74930 — Hexadecane dicarboxylic acid. In German. 1.50

2544-2545 PB L 74930 — Tetradecane dicarboxylodinitrile. In German. 1.50

2546-2547 PB L 74930 — Albucid solution for injection. In German. 1.50

2548-2561 PB L 74930 — Albucid tablets. In German. 1.50

Drugs and Pharmaceuticals (contd)

2562 PB L 74930	Atophanyl.	In German.	1.50
2563 PB L 74930	Cyclotropin.	In German.	1.50
2564-2566 PB L 74930	Urotropin.	In German.	1.50
2567-2573 PB L 74930	Atophan, sodium salt.	In German.	1.50
2575-2576 PB L 74930	Biosal.	In German.	1.50
2577 PB L 74930	Cortiron.	In German.	1.50
2578 PB L 74930	Dihydrofolliculin.	In German.	1.50
2579 PB L 74930	"Rusod".	In German.	1.50
2580 PB L 74930	"Rumbosal".	In German.	1.50
2581 PB L 74930	Ferrostabil.	In German.	1.50
2582-2592 PB L 74930	Folinerin.	In German.	1.50
2593-2607 PB L 74930	Fortamin.	In German.	1.50
2608 PB L 74930	"Globucid".	In German.	1.50
2609 PB L 74930	"Guttajod".	In German.	1.50
2610 PB L 74930	Hexonon.	In German.	1.50
2611-2613 PB L 74930	"Jofarsan".	In German.	1.50
2614-2618 PB L 74930	Manformon.	In German.	1.50
2619-2625 PB L 74930	Mineral tablets (synthetical Marienbad and Karlsbad tablets).	In German.	1.50
2626 PB L 74930	"Maturin".	In German.	1.50
2627-2628 PB L 74930	"Elixir of medinal"	In German.	1.50
2629-2630 PB L 74930	Novatophan.	In German.	1.50
2631-2632 PB L 74930	Neotropin.	In German.	1.50
2633 PB L 74930	Proluton.	In German.	1.50
2634 PB L 74930	"Ovis".	In German.	1.50
2635-2637 PB L 74930	Progynon.	In German.	1.50
2638-2644 PB L 74930	Paraform.	In German.	1.50
2645-2647 PB L 74930	Proviron.	In German.	1.50
2648 PB L 74930	"Provetan"	In German.	1.50
2649 PB L 74930	Selectan.	In German.	1.50
2650-2653 PB L 74930	Solganal.	In German.	1.50
2654 PB L 74930	Testoviron.	In German.	1.50
2655-2662 PB L 74930	T. C. G.	In German.	1.50
2663-2665 PB L 74930	Aceto testoviron.	In German.	1.50
2666-2667 PB L 74930	Thyroxin.	In German.	1.50
2668-2702 PB L 74930	Uroselectan.	In German.	3.50
2703-2710 PB L 74930	"Umbrenal".	In German.	1.50
2711-2712 PB L 74930	Urotropin.	In German.	1.50
2713-2723 PB L 74930	Vasano.	In German.	1.50
2724 PB L 74930	Veramon.	In German.	1.50

* PB L 81834. U. S. FIELD INFORMATION AGENCY, TECHNICAL. Iodine substitutes. (Tech Bulletin T-53) Jun 1947. 2 p. Price: Mimeo-25¢
The Linkner Werke, Dresden, distributed "Sepso-Tinktur" and Merz & Co., Frankfurt, manufactured "Iodosmo-jodfrei." A table listing the comparative actions of "Iodosmo-jodfrei," tincture of iodine, and chlorphenol camphor on a standard culture of Staphylococcus aureous haemolyticus is given.

Dye.

* PB L 85687. ADAMS, D. A. W. and others. Manufacture of miscellaneous dyestuff intermediates (excluding naphthalene derivatives). (BIOS Final Rept 1153, Item 22) Sep-Oct 1946. 376 p. Price: Microfilm-$7.00 - Photostat-$38.00
This report describes the manufacture of a large number of miscellaneous dye intermediates (excluding naphthalene derivatives) made in the various factories of the I. G. Farbenindustrie. The majority are speciality intermediates, chiefly for azo dyes, the manufacture of which has only been on a small scale. It supplements information given in: BIOS Rept 986 (PB 77764, v. 6, p. 189) and BIOS Rept 1157 (PB 69124, v. 6, p. 190). The manufacture of some of the more important primaries and intermediates is described in: BIOS Rept 1143 (PB 77720, v. 6, p. 100); BIOS Rept 1144 (PB 77729, v. 6, p. 99); BIOS Rept 1145 (PB 80345, v. 6, p. 605); BIOS Rept 1146 (PB 86137). Miscellaneous naphthalene intermediates are described in BIOS rept 1153 (PB 81027, v. 7, p. 667) and specialized intermediates for the azoic products in BIOS Rept 1149 (PB 80376, v. 7, p. 667). Appended are lists of reports submitted to the "Wissenschaftlicher Zetko-Austausch," documents, drawings, and flow diagrams.

* PB L 85593. CHAMBERLAIN, K. A. J. and others. Manufacture of azo and Lake dyestuffs at Hoechst, Ludwigshafen and Leverkusen. (BIOS Final Rept 1548, Item 22) Sep-Oct 1946. 222 p. Price: Microfilm-$6.50 - Photostat-$23.00
The information given in this report supplements that given in BIOS Final Rept 961 (PB 60905, v. 5, p. 378) and BIOS Final Rept 1157 (PB 69124, v. 6, p. 190) and includes: (1) azo acid wool dyes, (2) azo chrome wool dyes, (3) azo direct dyes, (4) azo dyes for acetate rayon, and (5) Lakes and pigments. List of documents is appended and an alphabetical index.

Dyes (contd)

* PB L 85144. FROMHOLZ, A. STANLEY. Manufacture of phthalodinitrile at the I. G. Farbenindustrie plant at Ludwigshafen. (FIAT Final Rept 1309) n. d. 16 p. Price: Mimeo-50¢

Part I covers a very simple process for the manufacture of phthalodinitrile. A flow sheet is attached. This is an intermediate used in the manufacture of Heliogen Blue B which is reported in Part II.

PB L 82232. I.G. FARBENINDUSTRIE A.G. LEVERKUSEN, GERMANY. Production of dyes. (BIOS Microfilm Reel F.D. 2537/46 (B.O. 374/47) Frames 1-1057 A). 1939-1946. 1078f. Price: Microfilm-$7.00 - Enlargement print-$109.00.

This BIOS microfilm reel contains descriptions of the processes for 779 dyes and dye intermediates produced at the I.G. plant of Leverkusen. Individual items, listed below, will be available as enlargement prints only. Please include PB and frame numbers when ordering in individual report. The reports are all in German. The reel also contains indexes of this material, giving frame and Hollerith numbers of the products.

Frames	Title	Price
1-4 PB L 82232	"Gelbsäure" and "Digelbsäure". 1939. In German. These intermediates, 4-aminoazobenzene - 4'- sulfonic and -3,4' disulfonic acids, are produced by sulfonation of 4 - amino benzene.	$2.00
5-6 PB L 82232	"Echtgelb extra." 1945. In German. Disodium salt of "Digelbsäure" above.	2.00
7 PB L 82232	"Palatinlichtgelb R X". 1946. In German. From mixture of 2 - naphthylanime - 5 - and - 8 - monosulfonic acid and mixture of p- and some o-cresol.	2.00
8 PB L 82232	"Chrysoin S G X". 1946. In German. From aniline - 2,4-disulfonic acid and resorcinol.	2.00
9 PB L 82232	"Tropiolin O". 1946. In German. From p- sulfanilic acid and resorcinol.	2.00
10 PB L 82232	"Säuregelb RS 166." 1946. In German. From p-sulfanilic acid and resorcinol.	2.00
11 PB L 82232	"Orange GG." 1946. In German. From aniline and 2-hydroxynaphthalene-6,8-disulfonic acid.	2.00
12 PB L 82232	"Brillantorange GN." 1946. In German. From mixture of o-, m-, p-toluidines and 2-naphthol-6-sulfonic acid.	2.00
13 PB L 82232	"Brillant orange R". 1946. In German. From mixture of 1, 3- and 1, 4- dimethyl 2- and 4- amino benzenes and 2- naphthol - 6 - sulfonic acid.	2.00
14 PB L 82232	"Azosäurebraun". 1946. In German. From 2- naphthylamine- 6- sulfonic acid and α- naphthylamine.	2.00
15 PB L 82232	"Crocein orange G". 1946. In German. From aniline and 2 - naphthol - 6 - sulfonic acid.	2.00
16 PB L 82232	"Orange G T". 1946. In German. From 2- toluidine and 2- naphthol - 6 - sulfonic acid.	2.00
17 PB L 82232	"Walkorange GN". 1946. In German. From 4- toluidine -2- sulfanilide and 2- naphthol -6- sulfonic acid.	2.00
18 PB 82232	"Walkgelb R". 1946. In German From 2, 5- dichloroaniline and N-ethyl - benzylamino - benzene -3- sulfonic acid.	2.00
19 PB L 82232	"Anthralan orange GT". 1946. In German. From aniline -2-sulfonic acid and N-acetyl γ-acid.	2.00
20-21 PB L 82232	"Ponceau GR II" and "R". 1946. In German. From xylidine (mixture) and mixture of 2- naphthol 3,6- disulfonic and -6- sulfonic acids.	2.00
22 PB L 82232	"Ponceau RR". 1946. In German. From m-xylidine and above sulfonic acid mixture.	2.00
23 PB L 82232	"Ponceau 3R". 1946. In German. From mixture of 4- amino - 1, 3- dimethylbenzene and 2-anisidine, and 2- naphthol -3,6- disulfonic acid.	2.00
24 PB L 82232	"Azogrenadin S". 1946. In German. From acetyl- p - phenylenediamine and 1- naphthol- 3,6 - disulfonic acid.	2.00
25 PB L 82232	"Brillantlanafuchsin 5L." 1946. In German. From cresidine and 1-naphthol-3,7-disulfonic acid.	2.00
26 PB L 82232	"Cochenillescharlach FS." 1946. In German. From m-xylidine and 1-naphthol-3, 6-disulfonic acid.	2.00
27 PB L 82232	"Bordo R". 1946. In German. From 1- amino naphthalene and 2-hydroxy naphthalene - 3,6- disulfonic acid.	2.00
28 PB L 82232	"Neptunbraun RX". 1946. In German. From 1-acetylamino -4- aminobenzene and 1 - naphthol -5- sulfonic acid.	2.00
29 PB L 82232	"Scharlach GR II". 1946. In German. From xylidine (mixture) with some 2-toluidine, and 2- naphthol -6- sulfonic acid.	2.00
30 PB L 82232	"Gelb 27175". 1946. In German. From aniline and 2- naphthylamine - 3,6- disulfonic acid.	2.00
31 PB L 82232	"Ponceau RRL". 1946. In German. From 4-amino- 1,3- dimethylbenzene and 2- naphthol- 3,6-disulfonic acid.	2.00
32 PB L 82232	"Ponceau 3 RL." 1946. In German. From 2- anisidine and 2- naphthol- 3,6- disulfonic acid.	2.00
33 PB L 82232	"Viktoriascharlach 3R"."Cochenillerot A" pure. 1946. In German. From 1- aminonaphthalene -4- sulfonic acid and 2- naphthol - 6, 8 - disulfonic acid.	2.00
34 PB L 82232	"Chromotrop F4B". 1946. In German. From 1- naphthylamine -4- sulfonic acid and 1-naphthol -5-sulfonic acid.	2.00
35 PB L 82232	"Croceinscharlach 3BK". 1946. In German. Chiefly 1- naphthylamine -4-sulfonic acid and 2- hydroxy - naphthalene - 8- sulfonic acid.	2.00
36 PB L 82232	"Echtrot E". 1946. In German. From 1- naphthylamine- 4- sulfonic acid and 2-naphthol -6- sulfonic acid.	$2.00
37 PB L 82232	"Naphtylaminrot". 1946. In German. From mixture of 1- naphthylamine - 3,6- and 3, 7 - disulfonic acids and 1 - naphthylamine.	2.00

Dyes (contd)

38 PB L 82232 "Ponceau 3 RO". 1946. In German. 2.00
From 1-naphthylamine -4- sulfonic acid and 2- naphthol - 6 sulfonic acid.

39 PB L 82232 "Naphtolrot SE". 1946. In German. 2.00
From 1- naphthylamine -4- sulfonic acid and 2- naphthol - 3, 6- disulfonic acid.

40 PB L 82232 "Ponceau 6R". 1946. In German. 2.00
From 1- naphthylamine -4- sulfonic acid and 2- naphthol - 3,6,8- trisulfonic acid .

41 PB L 82232 "Echtbraun D". 1946. In German. 2.00
From p- sulfanilic acid and 1-naphthol.

42 PB L 82232 "Viktoriaechtviolett 2 R extra". 1946. In German. 2.00
From 4- nitroaniline -2- sulfonic acid and gamma acid.

43 PB L 82232 "Amidonaphtolrot 6 B". 1946. In German. 2.00
From 4-amino - acetanilide and N-acetyl-H-acid.

44 PB L 82232 "Amidonaphtolrot G". 1946. In German. 2.00
From aniline and 1- acetamino -8-naphthol - 3, 6 - disulfonic acid.

45 PB L 82232 "Anthralaurot G". 1946. In German. 2.00
From 4-amino - 1- acetamino benzene - 3-sulfonic acid and gamma acid.

46 PB L 82232 "Azosäureblau B". 1946. In German. 2.00
From 4- amino - 1 - (N-methyl) - acetaminobenzene and "chromotropsäure C".

47 PB L 82232 "Azowollviolett 7R". 1946. In German. 2.00
From 6- amino - 3- acetamino - toluene and "chromotropsäure C".

48 PB L 82232 "Blauschwarz H F". 1946. In German. 2.00
From 4,6-dinitro- 2- aminophenol and H-acid.

49 PB L 82232 "Brillantnaphtholblau R". 1946. In German. 2.00
From 2-amino-5-acetamino - toluene and "chromotropsäure 4G".

50 PB L 82232 "Chromotrop 7B". 1946. In German. 2.00
From p-aminoazobenzene and "chromotropsäure C".

51 PB L 82232 "Chromotrop 2R". 1946. In German. 2.00
From aniline and "chromotropsäure 4G".

52 PB L 82232 "Viktoriaviolett 4 RS". 1946. In German. 2.00
From p-nitroaniline and "chromotropsäure C".

53 PB L 82232 "Anthralanrot GG". 1946. In German 2.00
From 1-acetyl - 1,3 - phenylene diamine -4-sulfonic acid and gamma acid.

54 PB L 82232 "Kaschmirblau TG extra". 1946. In German. 2.00
From 1- amino -2- nitro - 4- acetaminobenzene and H - acid.

55 PB L 82232 "Ponceau 4 GBL". 1946. In German. 2.00
From aniline, o , m , and p - toluidine, and 2-naphthol - 6 - sulfonic acid.

56 PB L 82232 "Lanacylviolett B F". 1946. In German. 2.00
From H-acid and N-ethyl -1- naphthylamine.

57 PB L 82232 "Sulfonsäureblau B". 1946. In German. 2.00
From H-acid and p-tolyl - 1 - naphthylamine - 8- sulfonic acid.

58 PB L 82232 "Sulfonsäureblau R". 1946. In German. 2.00
From H-acid and phenyl -1- naphthylamine - 8- sulfonic acid.

59 PB L 82232 "Sulfonsäurebraun 2R". 1946. In German. 2.00
From 4-chloro -2-a ino - 1,1'-diphenylether - 4'- sulfonic aicd and "phenylgamma acid".

60 PB L 82232 "Tolylblau N B". 1946. In German. 2.00
From 1-amino -8- hydroxy naphthalene and 1-anilino naphthalene -8- sulfonic acid.

61 PB L 82232 "Papierrot A extra". 1946. In German. 2.00
From 4- amino-acetanilide and "acetyl-γ--acid.

62 PB L 82232 "Lanafuchsin 6 B". 1946. In German. 2.00
From 4-amino-1-acetaminobenzene and N-benzensulfo - H-acid.

63 PB L 82232 "Periwollblau BF". 1946. In German. 2.00
From 4-nitro-2- aminophenol and 1-amino -8- hydroxy naphthalene - 2,4 - disulfonic acid.

64 PB L 82232 "Anthralenrot B". 1946. In German. 2.00
From o-aminodiphenylsulfone and gamma acid.

65 PB L 82232 "Igenalbraun I R F". 1946. In German. 2.00
From p-sulfanilic acid, 2-phenylamino -8- naphthol 6- sulfonic acid, and "phenyl-γ-acid.

56 PB L 82232 "Igenalbraun I T F". 1946. In German. 2.00
From aniline -4- sulfonic acid and 2-phenylamino -8- naphthol - 6 sulfonic acid.

67 PB L 82232 "Amidobrillantrot B B". 1946. In German. 2.00
From o-anisidine and N-acetyl - H-acid.

68 PB L 82232 "Seidendruckschwarz M". 1946. In German. 2.00
From 4, 4'-diaminodiphenyl- 3,3' disulfonic acid, 4-methoxy - 3-amino-toluene, 2,8- aminonaphthol - 3,6- disulfonic acid, and p-carboxyphenyl-gamma acid.

69 PB L 82232 "Croceinscharlach 3B". 1946. In German. 2.00
From 4-amino azobenzene -4- sulfonic acid and 2-naphthol -8- sulfonic acid.

70 PB L 82232 "Croceinscharlach 7 B". 1946. In German. 2.00
From 4-amino- 3, 2'-dimethyl-azobenzene -4'-sulfonic acid and 2-naphthol-8-sulfonic acid.

71-72 PB L 82232 "Croceinscharlach 10 B". 1946. In German. 2.00
From p-sulfanilic acid, 2-anisidine-methanesulfonic acid, and 2-naphthol -8- sulfonic acid.

73 PB L 82232 "Erythrin FX". 1946. In German. 2.00
From 4-amino-azobenzene and 1-naphthol-3,6-disulfonic acid.

74 PB 82232 "Metanilrot 3B". 1946. In German. 2.00
From 4-amino-azobenzene and 2-naphthol -8-sulfonic acid.

Dyes (contd)

75 PB 82232 "Neurot 5 R". 1946. In German. 2.00
From 4-aminoazobenzene -4'- sulfonic acid and 2- naphthol -6- and -8- sulfonic acid.

76 PB 82232 "Scharlach 3 R". 1946. In German. 2.00
From 4'-aminoazobenzene - 4, 3'- disulfonic acid and 2- naphthol.

77 PB 82232 "Tuchrot G". 1946. In German. 2.00
From 4-aminoazobenzene and chiefly 1-naphthol 4- sulfonic acid.

78-79 PB 82232 "Brillantcrocein 9 B". 1946. In German. 2.00
From 2-naphthylamine - 6,8-disulfonic acid, o-toluidine, and 2-naphthol - 6,8- disulfonic acid.

80-81 PB 82232 "Brillantcrocein MOO". 1946. In German. 2.00
From 4-aminoazobenzene and 2-naphthol - 6,8- disulfonic acid.

82 PB 82232 "Sulfocyanin G". 1946. In German. 2.00
From aniline, 1-naphthylamine - 7-sulfonic acid, and p-tolyl-1- naphthylamine -8- sulfonic acid.

83 PB 82232 "Sulfocyanin G R extra". 1946. In German. 2.00
From aniline -3- sulfonic acid, 1-naphthylamine, and p-tolyl -1- naphthylamine -8- sulfonic acid.

84 PB 82232 "Sulfocyanin 3 R". 1946. In German. 2.00
From aniline, 1-naphthylamine -7- sulfonic acid, and 1-phenylaminonaphthalene -8- sulfonic acid.

85 PB L 82232 "Sulfocyanin 5 R extra". 1946. In German. 2.00
From aniline-3-sulfonic acid, 1-naphthylanine, and phenyl -1-naphthylamine -8-sulfonic acid.

86 PB L 82232 "Sulfocyaninschwarz 2 B". 1946. In German. 2.00
From 1-naphylamine-5-sulfonic acid, 1-naphthylamine, and phenyl-1-naphthylamine -8-sulfonic acid.

87 PB L 82232 "Sulfocyaninschwarz 6B". 1946. In German. 2.00
From 1-naphthylamine-5-sulfonic acid, 1-naphthylamine, and 1-p-tolylamino naphthalene-8- sulfonic acid.

88 PB 82232 "Sulfocyanin G R T extra". 1946. In German. 2.00
From aniline-3-sulfonic acid, 1-naphthylamine, and p-tolyl - 1 - naphthylamine-8-sulfonic acid.

89 PB 82232 "Sulfocyanin 5 R T extra". 1946. In German. 2.00
From aniline-3-sulfonic acid, 1-naphthylamine, and phenyl-1-naphthylamine-8-sulfonic acid.

90 PB 82232 "Patentschwarz H." 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid, 1-naphthylamine -7- sulfonic acid and 1- naphthylamine.

91 PB 82232 "Naphthylaminschwarz R F". 1946. In German. 2.00
From aniline, 1-naphthylamine and 2-naphthol-3,6-disulfonic acid.

92 PB 82232 "Patentschwarz I". 1946. In German. 2.00
From aniline-4-sulfonic acid, 1-naphthylamine, and 2-naphthol -6-sulfonic acid.

93 PB L 82232 "Patentschwarz II". 1946. In German. 2.00
From aniline-4-sulfonic acid, 1 - naphthylamine, and 2 - naphthol - 3,6 - disulfonic acid.

94 PB L 82232 "Tintenschwarz B 85". 1946. In German. 2.00
From 2-chloroaniline-4-sulfonic acid, H-acid, and aniline.

95 PB L 82232 "Brillantschwarz B". 1946. In German. 2.00
From 1-naphthylamine - 3,6 - and 3,7 - disulfonic acids, 1 - naphthylamine and 2 - naphthol - 3, 6 - disulfonic acid.

96 PB L 82232 "Naphtolschwarz". 1946. In German. 2.00
From 1-naphthylamine-3,6- and 3,7 - disulfonic acids, 1-naphthylamine, and 2-naphthol.

97 PB L 82232 "Naphtylaminschwarz D F". 1946. In German. 2.00
From 1-naphthylamine - 3,6 - and 3,7 - disulfonic acids, and 1- naphthylamine.

98 PB L 82232 "Viktoriaschwarz B". 1946. In German. 2.00
From aniline -4- sulfonic acid, 1-naphthylamine, and 1,8 - dihydroxynaphthalene-4-sulfonic acid.

99 PB L 82232 "Violettschwarz S". 1946. In German. 2.00
From 1-naphthylamine-3,6 - and 3,7 disulfonic acids, 1-naphthylamine, and 2-naphthol-6-sulfonic acids.

100 PB L 82232 "Wollschwarz R". 1946. In German. 2.00
From aniline-3-sulfonic acid, - 1 naphthylamine-7-sulfonic acid, and 1-naphthylamine.

101-102 PB L 82232 "Amidoschwarz 10 B" and 10 B C". 1946. In German. 2.00
From p-nitroaniline, aniline, and H-acid.

103 PB L 82232 "Blauschwarz NSF". 1946. In German. 2.00
From p-nitroaniline, aniline -4-sulfonic acid and H-acid.

104 PB L 82232 "Amidoschwarzgrün B". 1946. In German. 2.00
From 4-nitroaniline, H-acid and aniline.

105 PB L 82232 "Naphthylaminschwarz 5 GL". 1946. In German. 2.00
From 4-nitroaniline, H-acid, and 2-amino diphenylether.

106 PB L 82232 "Sulfonsäuregrün 2 BL". 1946. In German. 2.00
From 2,5-dichloroaniline, H-acid, and 2-amino-4-chloro - 1,1' - diphenylether.

107 PB L 82232 "Wollschwarz GM". 1946. In German. 2.00
From 1-naphthylamine, 1-amino -8-naphthol - 3,6 - and 4,6 - disulfonic acids and p-nitroaniline.

108 PB L 82232 "Brillantwalkorange GR". 1946. In German. 2.00
From 4,4'-diamino-2,2' - dimethyldiphenylmethane and 2-naphthol-6-sulfonic acid.

109 PB L 82232 "Echtbraun". 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid and resorcinol.

Dyes (contd)

110 PB L 82232 "Kresolschwarz GB". 1946. In German. 2.00
From o-chloroaniline, H-acid and aniline.

111 PB L 82232 "Säureanthracenrot 3 B". 1946. In German. 2.00
From 3,3' - dimethyl - 4,4' - diamino-diphenyl - 6,6' - disulfonic acid and 2-naphthol.

112 PB L 82232 "Säureanthracenrot 3 BL". 1946. In German. 2.00
From o-toluidine, aniline,and "Schäffer K-Säure" (= coupled product of K acid and Schaeffer's acid linked through amino group of former and sulfuric acid group of latter).

113 PB L 82232 "Säureanthracenrot G". 1946. In German. 2.00
From benzidine - 2,2' - disulfonic acid and 2-naphthol.

114 PB L 82232 "Sulfongelb 5 G". 1946. In German. 2.00
From benzidine -2,2' -disulfonic acid and 2-methylindol.

115 PB L 82232 "Sulfongelb R". 1946. In German. 2.00
From 4,4'-diaminodiphenyl -2,2' - disulfonic acid and 1-phenyl -3-methyl - 5-pyrazolone.

116 PB L 82232 "Sulfonorange G". 1946. In German. 2.00
From benzidine -2,2'-disulfonic acid 2-naphthol, and 1-phenyl-3-methyl -5-pyrazolone.

117 PB L 82232 "Resorcinbraun". 1946. In German. 2.00
From aniline -4-sulfonic acid, xylidine (mixture), and resorcinol.

118 PB L 82232 "Tropäolin R N P". 1946. In German. 2.00
From aniline -4-sulfonic acid, xylidine mixture, toluidine mixture, and 1,3-dihydroxybenzene.

119 PB L 82232 "Walkrot G". 1946. In German. 2.00
From 4,2'-diaminodiphenylsulfide and 2-naphthol-6-sulfonic acid.

120 PB L 82232 "Walkgelb O". 1946. In German. 2.00
From 4,4'-diaminodiphenylsulfide - 2,2'-disulfonic acid and phenol.

121 PB L 82232 "Alphanolbraun B". 1946. In German. 2.00
From "primulinsulfosäure", "dehydrothiotoluidinsulfosäure" and 2-phenylamino-8-naphthol-6-sulfonic acid.

122-123 PB L 82232 "Igenalbraun CGG". 1946. In German. 2.00
From 2-amino-1-methoxybenzene -4-sulfonic acid, resorcinol, and 4-nitro -2,3-phenylenediamine.

124-125 PB L 82232 "Igenaldunkelbraun C". 1946. In German. 2.00
From p-sulfanilic acid, 4- and 3-nitroaniline, H- and J-acids, resorcinol, 4-aminoazobenzene, 3,4'-disulfonic acid and 4-nitroaniline-2-sulfonic acid.

126 PB L 82232 "Amidoechtrot GG". 1946. In German. 2.00
From m-aminobenzaldehyde and - 1-naphthol-4-sulfonic acid.

127 PB L 82232 "Supraminrot 3 B". 1946. In German. 2.00
From o-toluidine and acetyl -H-acid.

128 PB L 82232 "Supraminblau R". 1946. In German. 2.00
From 4-nitroaniline -2-sulfoethyl-anilide and gamma acid.

129 PB L 82232 "Supraminbordo B". 1946. In German. 2.00
Like preceding item, then nitro group reduced with sodium sulfide.

130 PB L 82232 "Supraminbraun G". 1946. In German. 2.00
From 2-amino-4(acetyl-ethylamino)-1-methylbenzene and p-anisyl-gamma acid.

131 PB L 82232 "Supraminbraun R". 1946. In German. 2.00
From 4-nitro-2-amino-anisole and 2-phenylamino 8-naphthol-6-sulfonic acid.

132 PB L 82232 "Supraminrot B". 1946. In German. 2.00
From 5-benzoyl-ethyl-amino-2-toluidine and 1-naphthol-4-sulfonic acid.

133 PB L 82232 "Supraminrot GG". 1946. In German. 2.00
From 4-toluidine-2-sulfanilide and 1-naphthol-4-sulfonic acid.

134 PB L 82232 "Supraminschwarz B R". 1946. In German. 2.00
From 5-nitro-2-aminoanisole and 2-phenylamine 8-naphthol -6-sulfonic acid.

135 PB L 82232 "Supraminrot BL". 1946. In German. 2.00
From 4-amino-1-(benzoyl-ethylamino) benzene and N-acetyl-gamma acid.

136 PB L 82232 "Anthralanbordo B". 1946. In German. 2.00
Like "Supraminbordo B" (frame 129 above), then acetylation of the amino group.

137 PB L 82232 "Supraminrot GL". 1946. In German. 2.00
From 4-amino - 1,3-dimethylbenzene -5-sulfonic acid and N-acetyl-gamma acid.

138 PB L 82232 "Supraminrot BLL". 1946. In German. 2.00
From 4-amino-1- (acetyl-ethylamino) benzene-2-sulfonic acid and gamma acid.

139 PB L 82232 "Palatinechtgelb GGN". 1946. In German. 2.00
From 2-chloro-4-tolsidine and 3-methyl-5-pyrazolone.

140 PB L 82232 "Supranolbordo B". 1946. In German. 2.00
From 1,1' -bis(4-amino-3-methoxyphenyl)-cyclohexane and 2,8-dihydroxynaphthalene -6-sulfonic acid.

141 PB L 82232 "Supranolrot B B". 1946. In German. 2.00
From 1,1'-bis(4-amino-3-methyl-phenyl)-cyclohexane and 2,8-dihydroxy-naphthalene-6-sulfonic acid.

142 PB L 82232 "Supranolrot BX". 1946. In German. 2.00
From 4,4'-diamino -2,2'-dimethyl-biphenyl, 1-naphthol-3,6-disulfonic acid and 2-naphthol.

143 PB L 82232 "Supranolscharlach G". 1946. In German. 2.00
From 4,4'-diamino-2,2'-dimethyl-biphenyl, 1-naphthol-3,6-disulfonic acid, and acetoacetic acid anilide.

144 PB L 82232 "Supranolrot B R". 1946. In German. 2.00
From 1,1'-bis (4-aminophenyl)-cyclohexane and 2,8-dihydroxynaphthalene -6-sulfonic acid.

Dyes (contd)

145 PB L 82232 "Supranolbrillantrot G". 1946. In German. 2.00
From 1-cyclohexyl-acetyl-4-phenyl-enediamine and 1-benzoylamino -8-naphthol-4,6-disulfonic acid.

146 PB L 82232 "Supraminorange G". 1946. In German. 2.00
From 1-cyclohexyl-acetyl-4-phenylene diamine and 2-naphthol - 6,8-disulfonic acid.

147 PB L 82232 "Supranolscharlach F G". 1946. In German. 2.00
From 1,1'-bis(4-aminophenyl)-cyclohexane, and 2-naphthol-6,8-disulfonic and 1-naphthol-4-sulfonic acids.

148 PB L 82232 "Supranolscharlach G N". 1946. In German. 2.00
From benzidine, 2-naphthal-6,8-disulfonic acid, and benzene-sulfonated phenol.

149 PB L 82232 "Supranolscharlach FGN". 1946. In German. 2.00
From 4,4'-diamino - 2,2'-dimethyl-biphenyl, 1-naphthol -3,6-disulfonic acid, and benzene-sulfonated phenol.

150 PB L 82232 "Supranolorange RR". 1946. In German. 2.00
From 4,4'-diamino - 2,2'-dimethyl-biphenyl, 2-naphthol - 6,8-disulfonic acid and aceto acetic acid anilide.

151 PB L 82232 "Supranolorange G S". 1946. In German. 2.00
From 1,1'-bis (4-amino-phenyl)-cyclohexane, 2-naphthol-6,8-disulfonic acid, and phenol.

152 PB L 82232 "Supranolbrillantrot 3 B". 1946. In German. 2.00
From 5-cyclohexyl-2-aminotoluene and 1-benzene-sulfamino-8-naphthol-3,6-disulfonic acid.

153 PB L 82232 "Diamantschwarz F B". 1946. In German. 2.00
From "Diamantschwarz-basis" and 1-naphthol-5-sulfonic acid.

154 PB L 82232 "Saurechromschwarz S T M". 1946. In German. 2.00
From o- and p- amino salicylic acid 1-napthylamine-7-sulfonic acid, and 2-naphthol-3,6-disulfonic acid.

155-156 PB L 82232 "Diamantschwarz PBB". 1946. In German. 2.00
From 4-chloro-2-aminophenol-6-sulfonic acid and 1,5-dihydroxy naphthalene.

157-158 PB L 82232 "Diamantschwarz PV". 1946. In German. 2.00
From 2-aminophenol-4-sulfonic acid and 1,5-dihydroxynaphthalene.

159 PB L 82232 "Diamantschwarz SPF". 1946. In German. 2.00
From 6-nitro-2-aminophenol-4-sulfonic acid and 1,5-dihydroxynaphthalene.

160 PB L 82232 "Chromogenschwarz ETOO". 1946. In German. 2.00
From 6-nitro-2-hydroxy-1-diazo-naphthalene-4-sulfonic acid and 1-naphthol.

161 PB L 82232 "Salicinblauschwarz AE". 1946. In German. 2.00
From 2-hydroxy-1-diazonaphthalene - 4-sulfonic acid and 1-naphthol.

162 PB L 82232 "Säurealizarinblauschwarz R". 1946. In German. 2.00
From 1-diazo-2-hydroxynaphthalene -4-sulfonic acid and 2-naphthol.

163 PB L 82232 "Salicinschwarz RLF". 1946. In German. 2.00
From -1-diazo-2-hydroxynaphthalene-4-sulfonic acid and resorcinol.

164 PB L 82232 "Säurealizarinblauschwarz BW". 1946. In German. 2.00
Zinc salt of item from 162 above.

165 PB L 82232 "Wollschwarz N". 1946. In German. 2.00
From 6-nitro-2-aminophenol-4-sulfonic acid and 2-naphthol.

166 PB L 82232 "Diamantgrau GL". 1946. In German. 2.00
From 4,6-dichloro-2-aminophenol and 1-carbethoxyamino-7-hydroxynaphthalene-3-sulfonic acid.

167 PB L 82232 "Säurealizarinschwarz SN". 1946. In German. 2.00
From 2,6-diaminophenol-4-sulfonic acid, 2-naphthol-6-sulfonic acid and 2-naphthol.

168 PB L 82232 "Chromotrop FB". 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid and 1-naphthol-4-sulfonic acid.

169 PB L 82232 "Echtbeizenblau B". 1946. In German. 2.00
From 4-chloro-2-aminophenol and "chromotropsäure C".

170 PB L 82232 "Säurechromblau 3G". 1946. In German. 2.00
From 4-chloro-5-nitro-2-aminophenol and "Chromotropsäure C".

171 PB L 82232 "Diamantblauschwarz R." 1946. In German. 2.00
From 4-nitro-2-aminophenol and "phenyl-γ-säure".

172 PB L 82232 "Säurechromblau 2R". 1946. In German. 2.00
From 4-chloro-2-aminophenol-6-sulfonic acid and 1-naphthol-5-sulfonic acid.

173 PB L 82232 "Säurechromblau 2R". 1946. In German. 2.00
From 4-chloro-2-aminophenol-6-sulfonic acid and 1-naphthol-4-sulfonic acid.

174 PB L 82232 "Anthracenchromblau R". 1946. In German. 2.00
From 4- acetamino-2-aminophenol-6-sulfonic acid and 2-naphthol.

175 PB L 82232 "Diamantblauschwarz BR". 1946. In German. 2.00
From -4-chloro-6-nitro-2-amino-phenol and "phenyl-γ-säure".

176-177 PB L 82232 "Alizaringelb GC"-Beizengelb GT". 1946. In German. 2.00
From m-nitroaniline and salicylic acid.

178 PB L 82232 "Beizengelb 3R". 1946. In German. 2.00
From p-nitroaniline and salicylic acid.

179 PB L 82232 "Alizaringelb GY". 1946. In German. 2.00
From 2-naphthylamine-6,8-disulfonic acid and salicylic acid.

180 PB L 82232 "Beizengelb G". 1946. In German. 2.00
From 2-naphthylamine-5-and -8-sulfonic acids and salicylic acid.

181 PB L 82232 "Diamantflavin G". 1946. In German. 2.00
From benzidine, tolidine and salicylic acid.

Dyes (contd)

182 PB L 82232 "Chromgelb R extra". 1946. In German. 2.00
From 2-nitro-4,4'-diamino-biphenyl and salicylic acid.

183 PB L 82232 "Anthracengelb C". 1946. In German. 2.00
From 4,4'- and 4,2'-diamino biphenyl sulfide and salicylic acid.

184 PB L 82232 "Chromechtgelb RR extra". 1946. In German. 2.00
From 2-5-dichloroaniline-4-sulfonic acid and salicylic acid.

185 PB L 82232 "Anthracengelb BN extra". 1946. In German. 2.00
From 2-naphthylamine-6-sulfonic acid and salicylic acid.

186 PB L 82232 "Säurealizarinbraun B". 1946. In German. 2.00
From 2-aminophenol-4-sulfonic acid and 1,3-phenylenediamine.

187 PB L 82232 "Säurealizarinbraun BB". 1946. In German. 2.00
From 2-amino-6-nitrophenol-4-sulfonic acid and 1,3-phenylenediamine.

188 PB L 82232 "Anthracenchromrot A". 1946. In German. 2.00
From 2-aminophenol-4-sulfonic acid and resorcinol.

189 PB L 82232 "Säurealizarinviolett N". 1946. In German. 2.00
From 2-aminophenol-4-sulfonic acid and 2-naphthol.

190 PB L 82232 "Metachromgrün BB". 1946. In German. 2.00
From 2-amino-4-nitrophenol and 1,8-diamino-naphthalene-4-sulfonic acid.

191 PB L 82232 "Anthracenrot". 1946. In German. 2.00
From 2-nitrobenzidine, salicylic acid, and 1-naphthol-4-sulfonic acid.

192 PB L 82232 "Chromorange GR". 1946. In German. 2.00
From 4-aminoazobenzene-4'-sulfonic acid and salicylic acid.

193 PB L 82232 "Diamantbordo R". 1946. In German. 2.00
From 3-amino-5-sulfo-2-hydroxy-benzoic acid and 1-naphthol-4-sulfonic acid.

194 PB L 82232 "Diamantgrün BT". 1946. In German. 2.00
From "Diamantschwarzbasis" and 1,8-dihydroxynaphthalene-4-sulfonic acid.

195 PB L 82232 "Diamantgrün 3G". 1946. In German. 2.00
From 2-amino-4-nitrophenol and H-acid.

196 PB L 82232 "Diamantgrün SS". 1946. In German. 2.00
From H-acid, 2,5-dichloroaniline, and 1-naphthylamine.

197 PB L 82232 "Diamantrot 3B". 1946. In German. 2.00
From 2-amino-4-sulfo-4'-hydroxy-3'-carboxy-diphenylsulfone and gamma acid.

198 PB L 82232 "Säureanthracenbraun MB". 1946. In German. 2.00
From 4-nitro-6-chloro-2-amino phenol 1 (4'-sulfo phenyl)-3-methyl-5-pyrazolone and 1-hydroxy naphthalene-5-sulfonic acid.

199 PB L 82232 "Säureanthracenbraun M". 1946. In German. 2.00
From 4-nitro-2-amino phenol and 1-hydroxy naphthalene-5-sulfonic acid.

200 PB L 82232 "Säureanthracenbraun PG". 1946. In German. 2.00
From 2-amino-benzoic acid and 2-phenylamino-8-naphthol-6-sulfonic acid.

201 PB L 82232 "Säureanthracenbraun R". 1946. In German. 2.00
From 4,6-dinitro-2-amino-1-hydroxy-benzene and 1,3-diaminobenzene-4-sulfonic acid.

202 PB L 82232 "Säureanthracenbraun RH extra". 1946. In German. 2.00
From 4-nitro-2-amino phenol and 1,3-diaminobenzene-4-sulfonic acid.

203 PB L 82232 "Säureanthracenbraun TSG". 1946. In German. 2.00
From 6-nitro-2-amino phenol-4-sulfonic acid and p-cresol.

204 PB L 82232 "Säurechromgrün G". 1946. In German. 2.00
From 2-amino-4-nitro-6-chloro-phenol and 1,8-diamino naphthalene-4-sulfonic acid.

205 PB L 82232 "Säurechromrot B". 1946. In German. 2.00
From N-p-amino-benzoyl-N-ethyl-1-naphthylamine and 1-benzoyl-amino-8-naphthol-4,6-disulfonic acid.

206 PB L 82232 "Säurechromviolett B". 1946. In German. 2.00
From 2-amino-4-chloro phenol and 1-naphthol-4-sulfonic acid.

207-208 PB L 82232 "Metachrombraun EB" and "Alphanolbraun R". 1946. In German. 2.00
From 4-nitro-2-amino phenol, 1,3-phenylenediamine, and 1-naphthylamine -5-sulfonic acid.

209 PB L 82232 "Anthracenchrombraun SRN". 1946. In German. 2.00
From 2-amino-4-nitro phenol and 2(2',4'-diamino phenoxy)-naphthalene-6-sulfonic acid.

210 PB L 82232 "Chromorange LR". 1946. In German. 2.00
From 2-amino phenol-4-sulfonic acid and 1-phenyl-3-methyl-5-pyrazolone.

211 PB L 82232 "Säurealizarinblaugrun L". 1946. In German. 2.00
From 4-chloroaniline-3-sulfonic acid, 3-amino -4-hydroxy-1-methyl benzene, and 2-naphthol.

212 PB L 82232 "Säurealizarinrot BT". 1946. In German. 2.00
From 2-amino benzoic acid and 2 (2'-naphthol-6'-sulfonylamino)-benzoic acid.

213 PB L 82232 "Chromrotbraun 3RD". 1946. In German. 2.00
From 4-amino phenol and pyrogallol.

214 PB L 82232 "Metachromorange 3R". 1946. In German. 2.00
From 2-chloro-4-nitro aniline and salicylic acid.

215 PB L 82232 "Metachromschwarzblau G". 1946. In German. 2.00
From 2-amino-4-chloro-1-phenol-6-sulfonic acid and 1-acetylamino-7-naphthol.

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Dyes (contd)

216 PB L 82232 "Alphanolbraun 12", which appears in index for this page, has been dealt with on frames 207-208.

217 PB L 82232 "Metachromblauschwarz BBX". 1946. In German. 2.00
From 6-nitro-4-chloro-2-amino phenol and 1-naphthol-5-sulfonic acid.

218 PB L 82232 "Metachrombraun BC". 1946. In German. 2.00
From 4-nitro-2-amino phenol, 1,3-phenylenediamine, and 1-naphthylamine-5-sulfonic acid.

219-220 PB L 82232 "Azoldruckorange R". 1946. In German. 2.00
From p-nitroaniline and salicylic acid.

221-222 PB L 82232 "Azoldruckbraun 3RL". 1946. In German. 2.00
From 3-amino-2-hydroxybenzene-5-sulfo-1-carboxylic acid, 6-Cleve's acid, and salicylic acid.

223 PB L 82232 "Azoldruckrot 2B extra". 1946. In German. 2.00
From 4-aminoazobenzene-3,4'-disulfonic acid and 2(N-methyl-4'-hydroxy-3'-carboxybenzenesulfamino) 8-naphthol-6-sulfonic acid.

224 PB L 82232 "Chromechtgelb RD". 1946. In German. 2.00
From benzidine-2,2'-disulfonic acid and salicylic acid.

225 PB L 82232 "Chromechtorange RD". 1946. In German. 2.00
From 5-(3'-amino-4'-methylbenzoylamino)-2-hydroxybenzoic acid and 2-naphthol-5,7-disulfonic acid.

226 PB L 82232 "Chromechtrot BD". 1946. In German. 2.00
From 5-(3'-aminobenzoylamino)-3-sulfo-2-hydroxy-benzoic acid and N-acetyl-H-acid.

227 PB L 82232 "Chromgelb A extra". 1946. In German. 2.00
From 2-chloro-5-aminobenzoic acid and salicylic acid.

228 PB L 82232 "Benzobordo GB". 1946. In German. 2.00
From aniline and 2-amino-5-naphthol 7-sulfonic acid.

229 PB L 82232 "Benzoechtorange S". 1946. In German. 2.00
From aniline and 2-amino-5-naphthol -7-sulfonic acid-urea.

230 PB L 82232 "Benzoechtorange WS". 1946. In German. 2.00
From same compounds as preceding item plus p-amino benzoic acid.

231 PB L 82232 "Benzoechtscharlach 4 BA". 1946. In German. 2.00
From 2-toluidine-5-sulfonic acid 2-anisidine, and γ-acid-urea.

232 PB L 82232 "Benzoechtscharlach 4 BS". In German. 2.00
From aniline, 4-acetylamino-1-amino benzene, and 2-amino-5-naphthol-7-sulfonic acid.

233 PB L 82232 "Benzoechtscharlach 5 BS". 1946. In German. 2.00
From m-amino-benzoic acid, o-anisidine, and γ-acid-urea.

234 PB L 82232 "Benzoechtscharlach 8 BA". 1946. In German. 2.00
From 1-naphthylamine-5-sulfonic acid and γ-acid-urea.

235 PB L 82232 "Benzoechtscharlach 8BS". 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid, aniline, and γ-acid-urea.

236 PB L 82232 "Benzoechtscharlach 8 BSN". 1946. In German. 2.00
From 1-naphthylamine-4,7-disulfonic acid, o-anisidine, and γ-acid-urea.

237 PB L 82232 "Benzoechtscharlach GS". 1946. In German. 2.00
From aniline, 2-naphthylamine-6-sulfonic acid, and γ-acid-urea.

238 PB L 82232 "Benzoechtviolett R". 1946. In German. 2.00
From benzidine, gamma acid, and γ-acid.

239 PB L 82232 "Benzolichtscharlach 5 BL". 1946. In German. 2.00
From o-anisidine and the mixed urea compound of γ-acid and 4-amino-1-acetaminobenzene.

240 PB L 82232 "Benzolichtscharlach GGN". 1946. In German. 2.00
From o-toluidine and the mixed urea compound of γ-acid and 4-amino-1-acetaminobenzene.

241 PB L 82232 "Benzorhodulinrot B". 1946. In German. 2.00
From aniline and imide of 2-amino-5-naphthol-7-sulfonic acid.

242 PB L 82232 "Benzorhodulinrot 3 B". 1946. In German. 2.00
From xylidine mixture and γ-acid imide.

243 PB L 82232 "Benzorubin HV". 1946. In German. 2.00
From benzidine, 2-naphthylamine -5, 7-disulfonic acid, and 2,5-amino naphthol-7-sulfonic acid.

244 PB L 82232 "Oxaminviolett". 1946. In German. 2.00
From benzidine and γ-acid.

245 PB L 82232 "Brillantbenzoechtviolett 5 RH". 1946. In German. 2.00
From 4,4-diamino diphenylurea-3,3'-disulfonic acid, 2-amino-8-naphthol -6-sulfonic acid, and 2-phenylamino -5-naphthol-7-sulfonic acid.

246 PB L 82232 "Brillantbenzoviolett 2 R". 1946. In German. 2.00
From dianisidine-mono-oxamic acid and 2-phenyl-amino-5-naphthol-7-sulfonic acid.

247 PB L 82232 "Diaminechtscharlach 7 BS". 1946. In German. 2.00
From 2-naphthylamine-5-sulfonic acid, o-anisidine, and γ-acid-urea.

248 PB L 82232 "Diaminheliotrop B". 1946. In German. 2.00
From benzidine, 1-naphthol-3,6-disulfonic acid, and γ-acid.

249 PB L 82232 "Dianillichtrot 8 HV". 1946. In German. 2.00
From 4-aminoazobenzene-4'-sulfonic acid, 2(4'-aminobenzoyl)-amino-5-naphthol-7-sulfonic acid, and 2-ureido -5-naphthol-7-sulfonic acid.

250 PB L 82232 "Dianilorange GS". 1946. In German. 2.00
From p-sulfanilic acid, 2(4'-amino-benzoyl)-amino-5-naphthol-7-sulfonic

acid, and 4-nitro-1,3-phenylene-diamine.

251-252 PB L 82232 "Halbwollblau G". 1946. In German. 2.00
From "Chromotropsäure C", p-nitroaniline, and γ-acid-urea.

253 PB L 82232 "Naphthaminblau TWF." 1946. In German. 2.00
From dianisidine, H-acid and phenyl-γ-acid.

254 PB L 82232 "Oxaminbordo RXI". 1946. In German. 2.00
From benzidine, 2-naphthylamine-6- and -7- sulfonic acids and γ-acid.

255 PB L 82232 "Oxaminrot X". 1946. In German. 2.00
From benzidine, salicylic acid, and 2-amino-5-naphthol-7-sulfonic acid.

256 PB L 82232 "Oxaminrot 3B". 1946. In German. 2.00
From benzidine, 2-naphthylamine-3,6-disulfonic acid, and 2-amino-5-naphthol-7-sulfonic acid.

257 PB L 82232 "Siriuscharlach B". 1946. In German. 2.00
From 2(4-amino-3-sulfophenyl)-5-methyl-benzothiazole-sulfonic acid and mixed urea of γ-acid and 4-amino-1-acetylaminobenzene.

258 PB L 82232 "Siriuslichtviolett BL". 1946. In German. 2.00
From 2-amino phenol-4-sulfomethylamide and γ-acid-imide.

259 PB L 82232 "Triazolreinblau R." 1946. In German. 2.00
From 1 - naphthol - 3, 6 - disulfonic acid and "Phenyl - γ - säure."

260 PB L 82232 "Diaminechtscharlach G F F." 1946. In German. 2.00
From aniline, "I midazol - γ-säure" (structural formula given), and 1 - naphthol - 4 - sulfonic acid.

261 PB L 82232 "Diaminechtscharlach 2 G." 1946. In German. 2.00
From aniline, "3'- Aminophenyl - 1, 2 - imidazol - γ-säure" (Structural formula given), and 2 - naphthol - 6 - sulfonic acid.

262 PB L 82232 "Diaminbrillant rubin S." 1946. In German. 2.00
From O - anisidine, "3' - Aminophenyl - 1. 2 - imidazol-säure." (formula given), and 1 - amino - 8 - naphthol - 2. 4 - disulfonic acid.

263 PB L 82232 "Benzoechtscharlach 4 BNL." 1946. In German. 2.00
From 2 - naphthylamine - 6 - sulfonic acid, O - anisidine, O - toluidine, and γ - acid - urea.

264 PB L 82232 "Triazolkorinth B" 1946. In German. 2.00
From benzidine, salicylic acid, γ - acid, and 4 - nitroaniline - 2 - sulfonic acid.

265 PB L 82232 "Benzolformscharlach R." 1946. In German. 2.00
From 2 - amino - 1, 4 - dimethyl-benzene, "I midazol - γ - säure" (formula given), and resorcinol.

266 PB L 82232 "Siriuslichtrubin BBL." 1946. In German. 2.00
From 2 - anisidine - 4 - sulfonic acid and γ - acid - urea.

267-268 PB L 82232 "Siriuslichtrot 5 B." 1946. In German. 2.00
From 2. 4 - dichloroaniline - 6-sulfonic acid, 3 - toluidine - H - methylene - sulfonic acid, and mixed urea of γ - acid and acetyl - 1, 4 - phenylene-diamine.

269 PB L 82232 "Pyrazinorange RT." 1946. In German. 2.00
From aniline, 2(4' - aminobenzoyl) - amino - 5 - naphthol - 7 - sulfonic acid, and 1 - phenyl - 5 pyrazolone - 3 - carboxylic acid.

270 PB L 82232 "Benzoechtorange F 3 R." 1946. In German. 2.00
From 2 - toluidine - 5 - sulfonic acid, 2 - toluidine, and 2 - amino - 5 - naphthol - 7 - sulfonic acid urea.

271-272 PB L 82232 "Siriuslichtblau B 2 R." 1946. In German. 2.00
From 2-naphthylamine-4, 8-disulfonic acid, 1-naphthylamine, 1-naphthylamine-7-sulfonic acid, and 2-amino-5-naphthol-7-sulfonic acid.

273-274 PB L 82232 "Siriusblau A R." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthylamine - 7 - sulfonic acid, 1 - naphthylamine, and 2 - amino - 5- naphthol - 7 - sulfonic acid.

275 PB L 82232 "Sirius schwarz L." 1946. In German. 2.00
From "Diamantschwarzbasis" and 2- amino - 8 - naphthol - 6 - sulfonic acid.

276-277 PB L 82232 "Benzoformrot FFL." 1946. In German. 2.00
From 1 - oxalylamino - 4 - amino-benzene - 2 - sulfonic acid, 1 - amino - 2 - naphthol - ethylether, "Imidazol - γ-säure" (formula given), and resorcinol.

278-279 PB L 82232 "Siriusblau G G." 1946. In German. 2.00
From 1 - acetylamino - 4 - amino naphthaline - 6- sulfonic acid, 1 - naphthylamine - 6 - sulfonic acid, 1 - naphthol - 4 - sulfonic acid, and 2 - phenylamino - 8 - naphthol - 7 - sulfonic acid.

280 PB L 82232 "Benzoviolett EL extra." 1946. In German. 2.00
From o-toluidine, 1 - naphthylamine - 6 - sulfonic acid, and 2 - amino - 5 - naphthol - 7 - sulfonic acid.

281 PB L 82232 "Brillantbenzoechtviolett 2 R L." 1946. In German. 2.00
From 2, 4 - xylidine - 6 - sulfonic acid, 2 , 5 - xylidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

282 PB L 82232 "Brillantbenzoorrot B." 1946. In German. 2.00
From 2 - naphthylamine - 8 - sulfonic acid, 1 - amino - 2 - ethoxynaphthalene, and 1. 8 - dihydroxynaphthalene - 4 - sulfonic acid.

283 PB L 82232 "Brillantbenzoviolett B." 1946. In German. 2.00

Dyes (contd)

from p - sulfanilic acid, cresidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

284 PB L 82232 "Brillantcongoblau 4FL." 1946. In German. 2.00
From 1 - naphthylamine - 4, 7 - disulfonic acid, 1 - naphthylamine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

285 PB L 82232 "Brillantcongoblau 6 B." 1946. In German. 2.00
From 2 - naphthylamine - 4, 8 - disulfonic acid, cresidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

286 PB L 82232 "Brillantcongoviolett B." 1946. In German. 2.00
From 2 - naphthylamine - 4, 8 - disulfonic acid, 2, 5 - xylidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

287-88 PB L 82232 "Siriuslichtblau F3 B." 1946. In German. 2.00
From "1 - Amino - 8 - O - Benzolsulfoxy - naphtalin - 3, 6 - disulfo säure," 4 - methoxy - 3 - toluidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

289 PB L 82232 "Siriusblau FG." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine - 6 - sulfonic acid, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

290 PB L 82232 "Diaminechtviolett 2 BN." 1946. In German. 2.00
From 1 - naphthylamine - 2 - sulfonic acid, cresidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

291 PB L 82232 "Chloraminbraun G." 1946. In German. 2.00
From primuline sulfonic acid, 2(4 - aminophenyl) - 5 - methyl-benzothiazole sulfonic acid, 1 - naphthylamine - 6 - and-7 - sulfonic acids, and phenol.

292-293 PB L 82232 "Siriuslichtblau BR." 1946. In German. 2.00
From 2 - amino naphthalene - 4, 8 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine - 7 - sulfonic acid, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

294-295 PB L 82232 "Siriuslichtblau G." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthyl - amine - 7 sulfonic acid, 1 - naphthylamine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

296 PB L 82232 "Siriusblau 6 G." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthylamine, 1 - amino - 2 - ethoxynaphthalene - 6 - sulfonic acid, and "phenyl - γ - säure."

297 PB L 82232 "Siriusbordo 6 B." 1946. In German. 2.00
From 4 - chloroaniline - 2 - sulfonic acid, 2, 5 - xylidine, and 2 - acetamino - 8 - naphthol - 7 - sulfonic acid.

298-299 PB L 82232 "Siriuslichtbraun G." 1946. In German. 2.00
From 4 - aminoazobenzene - 3, 4' - disulfonic acid, m - toluidine, and phosgene.

300-301 PB L 82232 "Siriusgrau G." 1946. In German. 2.00
From 2 - naphthylamine - 4, 6 - disulfonic acid, 1 - naphthylamine - 7 - sulfonic acid, 1 - naphthylamine - 6 - sulfonic acid, and 2 - amino - 8 - naphthol - 6 - sulfanic acid.

302-303 PB L 82232 "Siriusrot BB." 1946. In German. 2.00
From 3 - chloro - 2 - toluidine - 5 - sulfonic acid, aniline - N - methylene - sulfonic acid, and 2 - benzoylamino - 5 - naphthol - 7 - sulfonic acid.

304 PB L 82232 "Siriusrot 4 B." 1946. In German. 2.00
From 4 - aminoazobenzene - 4' - sulfonic acid and 2 - benzoylamino - 5 - hydroxy naphthalene - 7 - sulfonic acid.

305-306 PB L 82232 "Siriusrubin R." 1946. In German. 2.00
From 4 - chloroaniline - 2 - sulfonic acid, 2 - toluidine - N - methylene sulfonic acid, and 2 - acetamino - 5 - naphthol - 7 - sulfonic acid.

307 PB L 82232 "Siriusviolett BB." 1946. In German. 2.00
From 2, 4 - dimethylaniline - 6 - sulfonic acid, 4 - methoxy - 3 - toluidine, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

308-309 PB L 82232 "Siriusviolett 3 B." 1946. In German. 2.00
From 2, 4 - dimethylaniline - 6 - sulfonic acid, cresidine, and 4' - hydroxy - 3' - carboxy - 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

310 PB L 82232 "Toluylenechtbraun 3 G." 1946. In German. 2.00
From 2 - naphthylamine - 4, 8 - disulfonic acid, m - and o-toluidines, and 4 - nitro - 1, 3 - phenylene diamine.

311-312 PB L 82232 "Siriuslichtkorinth B." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine, - 7 - sulfonic acid, and 6 - nitro - 1, 3 - phenylenediamine.

313-314 PB L 82232 "Siriuslichtgrau B." 1946. In German. 2.00
From 2 - naphthylamine - 4, 8 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine - 7 - sulfonic acid, 2 - amino - 8 - naphthol - 6 - sulfonic acid, and 2 - naphthol - 6 - sulfonic acid.

315-316 PB L 82232 "Solaminbraun 4 RL." 1946. In German. 2.00
From aniline - 4 - sulfonic acid, 3 - toluidine, 1 - naphthylamine - 6 - sulfonic acid, and 4 - nitro - 1, 3 - phenylenediamine.

317-318 PB L 82232 "Siriusgrau GB." 1946. In German. 2.00
From 2- naphthylamine - 4, 8 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine - 7 - sulfonic acid, 1 amino - 8- naphthol - 4 - sulfonic acid, and 4 - nitro - 1, 3 - phenylenediamine.

319-320 PB L 82232 "Siriuslichtgrün BB." 1946. In German. 2.00
From 2 - naphthylamine - 8 - sulfonic acid, 3, 5 - xylidine,

Dyes (contd)

1 - amino- 2 - naphthol - ethyl - ether - 6 - sulfonic acid, and acetyl - H - acid.

321-322 PB L 82232 "Siriusgrau BR." 1946. In German. 2.00
From aniline, 1 - naphthylamine - 6 - and - 7 - sulfonic acids, and 2 - amino - 8 - naphthol - 6 - sulfonic acid.

323-324 PB L 82232 "Siriuslichtgrau G G." 1946. In German. 2.00
From aniline - 2, 5 - disulfonic acid, 1 - naphthylamine, 1 - naphthylamine - 7 - sulfonic acid, 1 - amino - 8 - naphthol - 4 - sulfonic acid, and 6 - nitro - 1, 3 - phenylenediamine.

325 PB L 82232 "Siriusschwarz VR." 1946. In German. 2.00
From "Siriusschwarz - base VR." and 2 - amino - 8 - naphthol - 6 - sulfonic acid.

326 PB L 82232 "Siriuslichtblau GL." 1946. In German. 2.00
From dianisidine and "Chromotropsäure 4 G."

327 PB L 82232 "Siriusschwarz LA." 1946. In German. 2.00
Purified "Siriusschwarz L."

328 PB L 82232 "Brillantbenzoechtgrün G L." 1946. In German. 2.00
From 4-aminobiphenyl - 3 - sulfonic acid, 1 - amino - 2 - ethoxynaphthalene - 6 - sulfonic acid, and N - benzoyl - H - acid.

329 PB L 82232 "Siriuslichtgrau VGL." 1946. In German. 2.00
From 5 - nitro-2- anisidine and 2(4' - carboxy - phenylamino) - 8 - naphthol - 6 - sulfonic acid.

330-331 PB L 82232 "Siriusgrün G T." 1946. In German. 2.00
From "Siriusorange I "reduced - structural formula given -, 1 - amino - 2 - ethoxynaphthalene - 6 - sulfonic acid, and N - 3' - carboxyphenyl - γ - acid.

332-333 PB L 82232 "Siriuslichtblau BL." 1946. In German. 2.00
From "1 - Amino - 8 - O - benzolsulfoxynaphtalin - 3. 6 - disulfosäure," 1 - naphthylamine, 1 - naphthylamine - 7 - sulfonic acid, and 2 - phenylamino - 5 - naphthol - 7 - sulfonic acid.

334-335 PB L 82232 "Siriuslichtoliv G L." 1946. In German. 2.00
From "Siriusorange I "reduced - formula given - , 1 - amino - 2 - ethoxynaphthalene - 6 - sulfonic acid, and 1 - acetylamino - 8 - naphthol - 4 - sulfonic acid.

336-337 PB L 82232 "Benzoformazrün F F G." 1946. In German. 2.00
From 1 - oxalylamino - 4 - aminobenzene - 2 - sulfonic acid, 1 - amino - 2 naphtholethylether, N - 3' - aminobenzoyl - γ - acid, and resorcinol.

338-339 PB L 82232 "Naphthamindirektbraun Y." 1946. In German. 2.00
From 1 - naphthylamine - 4 - sulfonic acid, p - nitroaniline, aniline - 3 - sulfonic acid, and m - phenylenediamine.

340-341 PB L 82232 "Oxamindunkelblau B G." 1946. In German. 2.00
From acetyl - 1, 4 - phenylenediamine, 1 - naphthol - 4 - sulfonic acid, 1 - naphthylamine - 6 - and 7 - sulfonic acids, and 2 - amino - 8 - naphthol - 7 - sulfonic acid.

342-343 PB L 82232 "Oxamindunkelblau R." 1946. In German. 2.00
First three constituents as in preceding item, plus 1, 3 - phenylenediamine.

344-345 PB L 82232 "Plutobraun R M." 1946. In German. 2.00
From 1 - formylamido - 3 - aminobenzene, gamma acid, 1, 3 - phenylene diamine, and 1, 3 - phenylenediamine - 4 - sulfonic acid.

346 PB L 82232 "Toluylenbraun B M." 1946. In German. 2.00
From 2, 6 - toluylenediamine - 4 - sulfonic acid, m - phenylenediamine, and 1 - naphthylamine - 4 sulfonic acid.

347 PB L 82232 "Toluylenbraun R." 1946. In German. 2.00
From 2,6-toluylenediamine-4-sulfonic acid, 2,4-toluylenediamine, and 1-naphthylamine-4-sulfonic acid.

348 PB L 82232 "Toluylenbraun V R extra." 1946. In German. 2.00
From 2, 6 - toluylenediamine - 4 - sulfonic acid, m - phenylenediamine, and 1 - naphthylamine - 4-sulfonic acid.

349 PB L 82232 "Toluylenbraun T." 1946. In German. 2.00
From different proportions of the same constituents as for preceding item.

350 PB L 82232 "Toluylengelb." 1946. In German. 2.00
From 2, 6 - toluylenediamine - 4 - sulfonic acid, and 4 - nitro - 1, 3 - phenylenediamine.

351 PB L 82232 "Baumwollbraun M." 1946. In German. 2.00
From 1 - naphthylamine, 1 - naphthylamine - 4 - sulfonic acid, and m - phenylenediamine.

352 PB L 82232 "Baumwollbraun A." 1946. In German. 2.00
From 1 - naphthylamine - 4 - and 7 - sulfonic acids, 1 - naphthylamine, and m - phenylenediamine.

353 PB L 82232 "Toluylengelb NL." 1946. In German. 2.00
From "Parazol - GP - base" - structure given - and 1 - phenyl - 5 - pyrazolone - 3 - carboxylic acid.

354 PB L 82232 "Congorot." 1946. In German. 2.00
From benzodine and 1 - naphthylamine - 4 - sulfonic acid.

355 PB L 82232 "Azolblau." 1946. In German. 2.00
From o - toluidine and 1 - naphthol - 4 - and - 5 - sulfonic acids.

356 PB L 82232 "Benzoazurin G." 1946. In German. 2.00
From dianisidine and 1 - naphthol - 4 - sulfonic acid.

357 PB L 82232 "Benzoazurin 3 B." 1946. In German. 2.00
From o- tolidine, γ-acid, and 1 - naphthol - 4 - sulfonic acid.

Dyes (cont'd)

358 PB L 82232 "Benzobraun D 3 G extra." 1946. In German. 2.00
From benzidine, salicylic acid, 1, 3-phenylene diamine, and aniline-4-sulfonic acid.

359-360 PB L 82232 "Oxydiaminbraun G." 1946 In German. 2.00
From benzidine, 2. 4 - diaminotoluene - 5 - sulfonic acid, m - phenylenediamine, and aniline - 4 - sulfonic acid.

361 PB L 82232 "Diaminbronze G." 1946. In German. 2.00
From o- tolidine, salicylic acid, H - acid, and 1 . 3 - phenylenediamine.

362 PB L 82232 "Benzodunkelbraun extra." 1946. In German. 2.00
From benzidine, salicylic acid, and 1 - naphthylamine - 6,- 7,- and - 5 - sulfonic acids.

363-364 PB L 82232 "Benzodunkelgrün B." 1946. In German. 2.00
From benzidine, H - acid, aniline, and phenol.

365-366 PB L 82232 "Benzodunkelgrün G G." 1946. In German. 2.00
From benzidine, H - acid, 1 - naphthylamine, and phenol.

367 PB L 82232 "Benzoechtrot G L." 1946. In German. 2.00
From benzidine, salicylic acid, and 2 , 5 - dihydroxynaphthalene - 7 - sulfonic acid.

368 PB L 82232 "Benzogrün F F." 1946. In German. 2.00
From o - tolidine, salicylic acid, 1 - amino - 8 - hydroxy - naphthalene - 4 - sulfonic acid, and aniline - 2, 5 - disulfonic acid.

369 PB L 82232 "Benzogrün F F G." 1946. In German. 2.00
From same constituents as preceding item, except that salicylic acid is treated with sodium hydroxide.

370 PB L 82232 "Benzoliv." 1946. In German. 2.00
From benzidine, salicylic acid, 1 - naphthylamine - 7 - sulfonic acid, and 1, 8 - dihydroxynaphthalene - 4 - sulfonic acid.

371-372 PB L 82232 "Benzoorange R." 1946. In German. 2.00
From benzidine, salicylic acid, o - cresotic acid, 1 - naphthylamine - 4 - sulfonic acid and 2 - naphthylamine - 6 - sulfonic acid.

373 PB L 82232 "Benzopurpurin B." 1946. In German. 2.00
From o - tolidine and 2 - naphthylamine - 6 - sulfonic acid.

374 PB L 82232 "Benzopurpurin 4 B." 1946. In German. 2.00
From o - tolidine and 1 - naphthylamine - 4 - sulfonic acid.

375 PB L 82232 "Benzopurpurin 10 B." 1946. In German. 2.00
From o - dianisidine and 1 - naphthylamine - 4 - sulfonic acid.

376 PB L 82232 "Benzorot 10 B." 1946. In German. 2.00
From o - dichlorobenzidine and 1 - naphthylamine - 4 - sulfonic acid.

377 PB L 82232 "Benzoviolett B." 1946. In German. 2.00
From benzidine, 1 - naphthol - 3 , 6 - disulfonic acid, and 1 - naphthol - 4 - sulfonic acid.

378 PB L 82232 "Bordo extra." 1946. In German. 2.00
From benzidine and 2 - naphthol - 8 - sulfonic acid.

379 PB L 82232 "Brillantazurin B." 1946. In German. 2.00
From dianisidine, 1 - naphthol - 3, 6 - disulfonic acid, and 1 - naphthol - 4 - sulfonic acid.

380 PB L 82232 "Columbiabraun R." 1946. In German. 2.00
From benzidine, gamma acid, 2, 4 - toluenediamine, and aniline - 4 - sulfonic acid.

381 PB L 82232 "Congobraun G." 1946. In German. 2.00
From benzidine, salicyclic acid, resorcinol, and aniline - 4 - sulfonic acid.

382 PB L 82232 "Congobraun R." 1946. In German. 2.00
First three constituents as for preceding item, and 1 - naphthylamine - 4 - sulfonic acid.

383 PB L 82232 "Congokorinth B." 1946. In German. 2.00
From o - tolidine, 1 - naphthylamine - 4 - sulfonic acid, 2 - naphthylamine - 6 - sulfonic acid, and 1 - naphthol - 4 - sulfonic acid.

384 PB L 82232 "Congokorinth G." 1946. In German. 2.00
From benzidine, 1 - naphthylamine - 4 - sulfonic acid, and 1 - naphthol - 4 - sulfonic acid.

385 PB L 82232 "Congorubin." 1946. In German. 2.00
From benzidine, 2 - naphthol - 8 - sulfonic acid, and 1 - naphthylamine - 4 - sulfonic acid.

386 PB L 82232 "Deltapurpurin 5 B." 1946. In German. 2.00
From o - tolidine and 2 - naphthylamine - 7 - sulfonic acid.

387 PB L 82232 "Dianilbraun BD." 1946. In German. 2.00
From 4. 4'- diaminobiphenyl - 3 - sulfonic acid, 1, 3 - phenylenediamine, aniline - 4 - sulfonic acid, and gamma acid.

388 PB L 82232 "Dianilbraun R." 1946. In German. 2.00
From different proportions of same constituents as preceding item.

389 PB L 82232 "Naphthaminbraun 4 G extra." 1946. In German. 2.00
From benzidine, salicylic acid, resorcinol, and aniline - 3 - sulfonic acid.

390 PB L 82232 "Oxaminbraun GX." 1946. In German. 2.00
From benzidine, 1 - chloro - 2, 6 - diaminobenzene - 4 - sulfonic acid, and aniline - 4 - sulfonic acid.

391 PB L 82232 "Oxaminbraun GRX." 1946. In German. 2.00
From benzidine, 1 - chloro - 2, 6 - diaminobenzene - 4 - sulfonic acid, 2, 4 - toluendiamine, and 1 - naphthylamine - 4 - sulfonic acid.

Dyes (contd)

392 PB L 82232 "Oxaminbraun 3 G." 1946. In German. 2.00
From benzidine, salicylic acid, 1, 3 - phenylenediamine, and aniline - 2, 4 - disulfonic acid.

393 PB L 82232 "Plutoorange G." 1946. In German. 2.00
From o - tolidine, salicylic acid, and 2, 4 - toluenediamine - 5 - sulfonic acid.

394 PB L 82232 "Toluylenchtorange G L." 1946. In German. 2.00
From benzidine, salicylic acid, and 2(3' - methyl - 5'- pyrazolone) - naphthalene - 4, 8 - disulfonic acid.

395 PB L 82232 "Toluylenorange G L." 1946. In German. 2.00
From o - tolidine, 3 - methyl - 2 - hydroxy- benzoic acid, and 2, 4 - toluenediamine - 5 - sulfonic acid.

396 PB L 82232 "Toluylenorange R." 1946. In German. 2.00
From o - tolidine and 2. 4 - toluenediamine - 5 - sulfonic acid.

397 PB L 82232 "Oxaminblau B." 1946. In German. 2.00
From dianisidine, 1 - amino - 5 - naphthol - 7 - sulfonic acid with some 2 - acid, and 1 - naphthol - 4 - sulfonic acid.

398 PB L 82232 "Oxaminbrillantrot B." 1946. In German. 2.00
From benzidine, 1 - phenol - 3 - sulfonic acid, and 2-amino-5-naphthol-7-sulfonic acid.

399 PB L 82232 "Chloraminrot 8 BS." 1946. In German. 2.00
From 2, 2 ' - dichlorobenzidine, 2 - naphthylamine - 3 , 6 - disulfonic acid, and 2 - naphthylamine - 6 - sulfonic acid.

400-401 PB L 82232 "Benzobraun BH." 1946. In German. 2.00
From salicylic acid, 1 - naphthylamine - 6 - and - 7 - sulfonic acids, and m - phenylenediamine.

402 PB L 82232 "Brillantdirektorange G." 1946. In German. 2.00
From benzidine, salicylic acid, and 3 - aminophenol - 4 - sulfonic acid.

403 PB L 82232 "Brillantpurpurin R." 1946. In German. 2.00
From o - tolidine, 2 - naphthylamine - 3, 6 - disulfonic acid, 1 - naphthylamine - 4 - sulfonic acid, and 2 - naphthylamine - 6 - sulfonic acid.

404 PB L 82232 "Columbiabronze R." 1946. In German. 2.00
From benzidine, salicylic acid, 1 - naphthylamine - 6 - and - 7 - sulfonic acids, and gamma acid.

405-406 PB L 82232 "Columbiakatechin G." 1946. In German. 2.00
From 1, 3 - phenylenediamine - 4, 6 - disulfonic acid, m - phenylenediamine, o - tolidine, and salicylic acid.

407-408 PB L 82232 "Columbiakatechin NF." 1946. In German. 2.00
From benzidine, salicylic acid, m - phenylenediamine, and 2 - amino - 8 - naphthol - 3, 6 - disulfonic acid.

409 PB L 82232 "Columbiagrün G." 1946. In German. 2.00
From benzidine, salicylic acid, H - acid, and p - nitroaniline.

410 PB L 82232 "Congoorange G." 1946. In German. 2.00
By ethylation of "Benzidinorange" (composition indicated).

411 PB L 82232 "Diaminbordo B." 1946. In German. 2.00
From benzidine, 1 - naphthylamine - 4 - sulfonic acid, and gamma acid.

412 PB L 82232 "Diaminbordo S." 1946. In German. 2.00
By ethylation of "OH - Rot AZ," (composition indicated).

413 PB L 82232 "Diaminbraun B." 1946. In German. 2.00
From benzidine, salicylic acid, and 2 - phenylamino - 8 - naphthol-6 - sulfonic acid.

414 PB L 82232 "Diaminbraun M." 1946. In German. 2.00
From benzidine, salicylic acid, and gamma acid.

415 PB L 82232 "Diaminbraun S." 1946. In German. 2.00
From benzidine, 2 - amino - 8 - hydroxynaphthalene - 3, 6 - disulfonic acid, and 1, 3 - diaminobenzene.

416 PB L 82232 "Diaminbrillantbordo B." 1946. In German. 2.00
From benzidine, 2 - naphthylamine - 3 , 6 - disulfonic acid, and gamma acid.

417 PB L 82232 "Diaminbrillantscharlach B." 1946. In German. 2.00
From tolidine, 2 - naphthylamine - 3, 6 - disulfonic acid, and 2 - naphthylamine - 6 - sulfonic acid.

418-419 PB L 82232 "Diaminkatechin B." 1946. In German. 2.00
From benzidine, H - acid, phenol, gamma acid, and 1, 3 - diaminobenzene.

420 PB L 82232 "Diaminkatechin G." 1946. In German. 2.00
From benzidine, salicylic acid, 1 - naphthylamine - 7 - and - 6 - sulfonic acid, and 1, 3 - diaminobenzene.

421-422 PB L 82232 "Diaminkatechin 3 G." 1946. In German. 2.00
From 1, 5 - naphthylenediamine - 3, 7 - disulfonic acid, phenol, 1 - naphthylamine - 7 - and - 6 - sulfonic acids, benzidine, and salicylic acid.

423 PB L 82232 "Diminechtrot F." 1946. In German. 2.00
From benzidine, salicylic acid, and 2 - amino - 8 - naphthol - 6 - sulfonic acid.

424 PB L 82232 "Diaminogrün B." 1946. In German. 2.00
From benzidine, H - acid, p - nitro aniline and phenol.

425 PB L 82232 "Diaminogrün G L." 1946. In German. 2.00
From benzidine, H - acid, o - chloroaniline and phenol.

426 PB L 82232 "Diaminogrün F G." 1946. In German. 2.00

Dyes (contd)

From benzidine, H - acid, 2, 5 - dichloroaniline, o - cresol, and salicylic acid.

427 PB L 82232 "Diaminorot G." 1946. In German. 2.00
From benzidine, salicylic acid, H - acid and o - nitroaniline.

428 PB L 82232 "Diaminorange F." 1946. In German. 2.00
By ethylation of "Phenolorange F" (composition indicated).

429 PB L 82232 "Diaminscharlach B." 1946. In German. 2.00
By ethylation of "OH - Rot B" (composition indicated).

430 PB L 82232 "Diaminscharlach 3 B." 1946. In German. 2.00
By ethylation of "OH-Rot 3 B" (composition indicated).

431 PB L 82232 "Diaminviolett N." 1946. In German. 2.00
From benzidine and gamma acid.

432 PB L 82232 "Parabraun V extra." 1946. In German. 2.00
From benzidine, 2 - amino - 8 - naphthol - 3, 6 - disulfonic acid, and 1, 3 - phenylenediamine.

433 PB L 82232 "Benzolichtorange G." 1946. In German. 2.00
From benzidine, salicylic acid, 2(3' - methyl - 5 pyrazolone) - naphthalene - 5 , 7 - disulfonic acid, and 1 (3' - sulfophenyl) - 3 - methyl -5 - pyrazolone.

434 PB L 82232 "Columbiaorange R 70." 1946. In German. 2.00
From benzidine, salicylic acid, 2, 4 - toluene-diamine, and aniline - 4 - sulfonic acid.

435-436 PB L 82232 "Naphtaminechtbraun NL." 1946. In German. 2.00
From benzidine, 2 - hydroxybenzoic acid, 1, 3 - diaminobenzene, 2, 8 - amino naphthol - 3 , 6 - disulfonic acid, and 1 - naphthylamine - 4 - sulfonic acid.

437 PB L 82232 "Diaminpurpurin 3 B." 1946. In German. 2.00
From tolidine, 2 - naphthylamine - 3 , 6 - disulfonic acid, and 2 - naphthylamine - 6 - sulfonic acid.

438-439 PB L 82232 "Diaminkatechin BNL." 1946. In German. 2.00
From benzidine, salicylic acid, H - acid, and 1 - naphthol - 5 - sulfonic acid.

440-441 PB L 82232 "Naphtaminechtbraun A R D - F." 1946. In German. 2.00
From benzidine, salicylic acid, 2, 4 - diamino - toluene, "3 - amino - 8 - benzolsulfoyloxynaphtalin - 3, 6 - disulfosäure," and 1 - naphthylamine - 4 - sulfonic acid.

442 PB L 82232 "Dianilblau R." 1946. In German. 2.00
From o - tolidine and "chromotrop - säure 4 G."

443 PB L 82232 "Dianilblau G." 1946. In German. 2.00
From o - bianisidine and "chromotropsäure 4 G."

444 PB L 82232 "Dianilblau R R." 1946. In German. 2.00
From o- tolidine, "Chromotropsäure C," and 1 - naphthol - 4 - sulfonic acid.

445 PB L 82232 "Dianilschwarz GR." 1946. In German. 2.00
From benzidine, "Chromotropsäure C," gamma acid, and m - phenylenediamine.

446 PB L 82232 "Anoschwarzblau M." 1946. In German. 2.00
From o - tolidine, H - acid, and 3 - hydroxydiphenylamine.

447 PB L 82232 "Benzoblau BB." 1946. In German. 2.00
From benzidine and H - acid.

448 PB L 82232 "Benzoblau R X." 1946. In German. 2.00
From o - tolidine, benzidine, H - acid, and 1 - naphthol - 4 - and 5 - sulfonic acids.

449 PB L 82232 "Benzomarineblau R M." 1946. In German. 2.00
From benzidine, H - acid, and γ-acid.

450 PB L 82232 "Benzorsinblau ." 1946. In German. 2.00
From bianisidine and H - acid.

451-452 PB L 82232 "Diaminstahlblau L." 1946. In German. 2.00
From o - tolidine, H - acid, 4 - nitro - 2 - aminotoluene, 1 - amino - 8 - naphthol - 4 - sulfonic acid and 1 - amino - 8 - naphthol - 2, 4 - disulfonic acid.

453 PB L 82232 "Toluylenechwarzblau G N." 1946. In German. 2.00
From benzidine, H - acid, gamma acid, and m - phenylenediamine.

454 PB L 82232 "Triazolduakelblau R." 1946. In German. 2.00
From benzidine, H - acid, γ- acid and 4 - nitroaniline- 2-sulfonic acid.

455 PB L 82232 "Benzyriaoseblau R R ." 1946. In German. 2.00
From dianisidine, 2 - naphthol - 8 - sulfonic acid, and 1 - amino - 8 - naphthol - 4 - sulfonic acid.

456-457 PB L 82232 "Columbiaschwarz T R." 1946. In German. 2.00
From o - bianisidine, gamma - acid, γ - acid, 4 - nitroaniline - 2 - sulfonic acid, and 1, 3 - diaminobenzene.

458 PB L 82232 "Oxydiaminschwarz T." 1946. In German. 2.00
From o - tolidine, gamma acid, 2 - amino - 8 - hydroxynaphthalene - 3, 6 - disulfonic acid, and m - phenylenediamine.

459 PB L 82232 "Oxaminschwarz R N." 1946. In German. 2.00
From 1 - amino - 4 - acetamino-benzene, γ - acid, and 1 - amino - 8 - hydroxynaphthalene - 7 - sulfonic acid.

460-461 PB L 82232 "Direktlichtschwarz N extra." 1946. In German. 2.00
From benzidine, H - acid, aniline, and m - phenylenediamine.

Dyes (contd)

452-463 PB L 82232 "Direktliefschwarz R W extra." 1946. In German. 2.00
First three constituents as in preceding item, and toluene - 2, 4 - diamine.

464-465 PB L 82232 "Oxydiaminschwarz J R extra." 1946. In German. 2.00
From same compounds as 460-461.

466-467 PB L 82232 "Columbiavioletteschwarz O extra." 1946. In German. 2.00
From benzidine, H - acid, aniline, and 5 - amino - o - anisidine.

468-469 PB L 82232 "Chromlederschwarz A." 1946. In German. 2.00
From benzidine, H - acid, m - phenylenediamine, and 4 - amino - acetanilide.

470 PB L 82232 "Diaminschwarz H V." 1946. In German. 2.00
From benzidine, H - acid, p - nitroaniline, and gamma acid.

471 PB L 82232 "Direktblauschwarz B M." 1946. In German. 2.00
From bianisidine, H - acid, m - phenylenediamine, and 4 - amino - acetanilide.

472-473 PB L 82232 "Chromlederechtschwarz S." 1946. In German. 2.00
From benzidine, H - acid, p - sulfanilic acid, and 3 - ethylamino-acetanilide.

474-475 PB L 82232 "Chromlederechtschwarz V." 1946. In German. 2.00
From benzidine, tolidine, H - acid, p - sulfanilic acid, and 2 , 4 - dihydroxyquinoline.

476-477 PB L 82232 "Kunstseidenschwarz A S extra." 1946. In German. 2.00
From benzidine, H - acid, aniline, and 6 - chloro - 3 - aminophenol.

478 PB L 82232 "Diamino orange D." 1946. In German. 2.00
From 4 - nitrotoluene - 2-sulfonic acid.

479 PB L 82232 "Diaminbraun A T C ." 1946. In German. 2.00
From 4 - nitrotoluene - 2 - sulfonic acid and p - phenylenediamine.

480 PB L 82232 "Curcumin S." 1946. In German. 2.00
From 4 - nitrotoluene - 2 - sulfonic acid.

481 PB L 82232 "Direktgelb R extra." 1946. In German 2.00
(From preceding item.)

482 PB L 82232 "Paniergelb F." 1946. In German. 2.00
From 4 - nitrotoluene - 2 - sulfonic acid.

483 PB L 82232 "Siriuslichtorange 5 G." 1946. In German. 2.00
From 4 - nitrotoluene - 2 - sulfonic acid and 4 - amino azobenzene - 4'- sulfonic acid.)

484 PB L 82232 "Solaminorange R R L." 1946. In German. 2.00
From 4 - nitrotoluene - 2 sulfonic acid.

485 PB L 82232 "Stilbengelb 3 GX." 1946. In German. 2.00
From 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid.

486 PB L 82232 "Diaminechtbraun G." 1946. In German. 2.00
From 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid and "Sulfanilsäureviolett."

487-488 PB L 82232 (1) "Amido - R - säureviolett" and (2) "Diaminechtbraun G R." 1946. In German. 2.00
(1) From 2 - naphthylamine - 3, 6 - disulfonic acid and 1 - naphthylamine; (2) from (1) and 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid.

489-490 PB L 82232 (1) "Metatoluidinviolett." (2) "Siriuslichtorange 7 G." 1946. In German. 2.00
(1) From p - sulfanilic acid and m - toluidine; (2) from (1) and 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid.

491 PB L 82232 "Siriuslichtorange 7 GL." 1946. In German. 2.00
From 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid and 4 - aminoazobenzene - 4' - sulfonic acid.

492 PB L 82232 "Siriuslichtbraun R." 1946. In German. 2.00
From 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid and "Kresolaetherviolett."

493 PB L 82232 "Siriuslichtbraun 3 R." 1946. In German. 2.00
From same compounds as 486, above.

494 PB L 82232 "Siriuslichtorange 3 R." 1946. In German. 2.00
From same compounds as 492.

495 PB L 82232 "Siriuslichtorange G G L." 1946. In German. 2.00
From same compounds as 491.

496 PB L 82232 "Benzoechtchromrot G." 1946. In German. 2.00
From 4, 4' - dinitrostilbene - 2, 2' - disulfonic acid and "Benzoechtchromrot - base."

497 PB L 82232 "Chrysophenin G." 1946. In German. 2.00
By ethylation of next item, 498.

498 PB L 82232 "Brillantgelb." 1946. In German. 2.00
From 4, 4' - diaminostilbene - 2, 2' - disulfonic acid and phenol.

499 PB L 82232 "Siriuslichtorange F 3G." 1946. In German. 2.00
By reduction of "Siriusorange I" - see 1044, below.

500-501 PB L 82232 "Pyramingelb G R X extra." 1946. In German. 2.00
From 4, 4' - diaminostilbene - 2, 2' - disulfonic acid and o - cresol.

502 PB L 82232 "Diazoechtschwarz B." 1946. In German. 2.00
From bianisidine, 1 - naphthylamine - 7 - sulfonic acid, and gamma acid.

503 PB L 82232 "Diaminschwarz B H." 1946. In German. 2.00
From benzidine, H - acid, and gamma acid.

504 PB L 82232 "Paraschwarz R." 1946. In German. 2.00
From 4 - oxalylaminoaniline, 1, 3 - phenylenediamine, and 1, 8 - amino naphthol - 4, 6 - disulfonic acid.

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Dyes (contd)

505
PB L 82232 "Diazoblau 3 R." 1946. In German. 2.00
From bianisidine, 2 - naphthol - 3, 6 - and - 6, 8 - disulfonic acids, and m - toluidine.

506-507
PB L 82232 "Diazoindigoblau BR extra." 1946. In German. 2.00
From oxalyl - 1, 4 - phenylenediamine, 1 - naphthylamine - 6 - sulfonic acid, and 1 - naphthol - 4 - sulfonic acid.

508-509
PB L 82232 "Diazoindigoblau 4 G L extra." 1946. In German. 2.00
From 6 - chloro - 4 - oxalylamino - m - anisidine, 1 - naphthylamine - 6 - sulfonic acid, and 1 - naphthol - 3 - sulfonic acid.

510-511
PB L 82232 "Diazoindigoblau M." 1946. In German. 2.00
From oxalyl - 1, 4 - phenylenediamine, 1 - naphthylamine - 6 - sulfonic acid, and 2 - naphthol - 6 - sulfonic acid.

512-513
PB L 82232 "Diazoindigoblau 3 R." 1946. In German. 2.00
From 4 - oxalylaminoaniline - 3 - sulfonic acid, 1 - naphthylamine, and 2 - amino - 5 - naphthol - 7 - sulfonic acid.

514
PB L 82232 "Diazoindigoblau 3 R L." 1946. In German. 2.00
From oxalyl - 1, 4 - phenylenediamine, 1 - naphthylamine - 6 - sulfonic acid, and 1 - phenyl - 3 - methylpyrazolone.

515-516
PB L 82232 "Diazomarineblau B P 25." 1946. In German. 2.00
From benzidine, γ - acid, 4 - nitroaniline - 2-sulfonic acid, and p - nitroaniline.

517
PB L 82232 "Diazoreinblau R." 1946. In German. 2.00
From bianisidine, 1 - acetamido - 2 - naphthol - 4, 6 - disulfonic acid, and 5 - acetamido - o-toluidine.

518-519
PB L 82232 "Diazoreinblau 3 GL." 1946. In German. 2.00
From 6 - chloro - 4 - oxalylamino - m - anisidine, 1 - naphthylamine - 6 - sulfonic acid, and 1 - naphthol - 3 - sulfonic acid.

520-521
PB L 82232 "Parelichtblau 6 B." 1946. In German. 2.00
From first two constituents of preceding item, 2 - naphthol - 7 - sulfonic acid, and 1, 8 - dihydroxy-naphthalene - 4 - sulfonic acid.

522
PB L 82232 "Diaminogenreinblau N." 1946. In German. 2.00
From 4 - acetamido - 6 - methyl - m- anisidine, 1 - naphthylamine - 6 - sulfonic acid, and 1 - naphthol - 4-sulfonic acid.

523-524
PB L 82232 "Naphtogenblau B." 1946. In German. 2.00
From acetyl - 1, 4 - phenylenediamine, 1 - naphthol - 5 - sulfonic acid, 1 - naphthylamine - 6 - sulfonic acid, and 4 - methoxy - 3 - toluidine.

525-526
PB L 82232 "Diazobrillantblau B B L A." 1946. In German. 2.00
From 6-chloro-4-oxalylamino-m-anisidine, 4-acetamido-m-anisidine, 1-naphthylamine-2-ethoxy-6-sulfonic acid, and 2-naphthol-6-sulfonic acid.

527-528
PB L 82232 "Diazoindigoblau R M." 1946. In German. 2.00
From oxalyl - 1, 4 - phenylene-diamine, 1 - naphthylamine - 6 - and - 7 - sulfonic acids, and 2 - naphthol - 8 - sulfonic acid.

529
PB L 82232 "Diazobordo 7 BD." 1946. In German. 2.00
From 3, 3' - diamino-azoxybenzene and γ - acid.

530-531
PB L 82232 "Diaminnitrazolgrün S." 1946. In German. 2.00
From benzidine, 1-amino-8-naphthol-4,6-disulfonic acid, p-nitroaniline, and phenol.

532
PB 82232 "Diazolichtbordo 5 BL." 1946. In German. 2.00
From 4 - amino 3, 2'- dimethyl-azobenzene - 4' - sulfonic acid and 2 (4' - aminobenzoyl) - amino - 5 - naphthol - 7 - sulfonic acid.

533
PB L 82232 "Diazanilscharlach 3 B A." 1946. In German. 2.00
From p - toluidine and 2 - (4' - aminobenzoyl) - amino- 8 - naphthol - 6 - and - 5 - naphthol - 7 - sulfonic acids.

534
PB L 82232 "Diazobordo 7 B." 1946. In German. 2.00
From 3 - formylamino aniline and γ - acid - imide.

535
PB L 82232 "Diazobraun G." 1946. In German. 2.00
From benzidine, H - acid, and "Bismarckbraun."

536
PB L 82232 "Diazobraun 3 G." 1946. In German. 2.00
From 3 - oxalylamido - o - toluidine - 4 - sulfonic acid and 5 - methyl - o - anisidine.

537
PB L 82232 "Parazelb G G." 1946. In German. 2.00
From 3 - (3' - nitrobenzoylamino) - o - toluidine - 4 - sulfonic acid and 5 - methyl - o - anisidine.

538-539
PB L 82232 "Diazobraun 3 R." 1946. In German. 2.00
From 3 - formylamino aniline, 1, 3 - phenylenediamine - 4 - sulfonic acid, and m - phenylenediamine.

540-541
PB L 82232 "Diazobraun 3 R B." 1946. In German. 2.00
From same compounds as preceding item, plus 2, 6 - toluene-diamine - 4 - sulfonic acid.

542
PB L 82232 "Diazobrillantgrün 3 G." 1946. In German. 2.00
From 2, 5 - dichloroaniline - 4 - sulfonic acid, 1 - amino - 2 - naphthol - ethylether - 6 - sulfonic acid, and p - aminobenzoyl - γ - acid.

543
PB L 82232 "Diazobrillantorange 5 G extra." 1946. In German. 2.00
From 4(3' - nitrobenzoyl - amino) - aniline - 2 - sulfonic acid and 2 - (4 - [3' - methyl - 5'- oxopyrazole-1' - yl] - phenyl - benzthiazole.

544
PB L 82232 "Diazobrillantscharlach B extra." 1946. In German. 2.00
From o - toluidine and "Schwefelrot-säure" (formula given).

Dyes (contd)

545 PB L 82232 "Diazobrillantscharlach BA extra." 1946. In German. 2.00
From same constituents as preceding item, plus 4 - toluidine - 3 - sulfonic acid.

546 PB L 82232 "Diazobrillantscharlach 2 BL extra." 1946. In German. 2.00
From formyl - 1, 3 - phenylenediamine and γ - acid urea.

547 PB L 82232 "Diazobrillantscharlach G extra." 1946. In German. 2.00
From aniline and "Schwefelrotsäure" (structure given).

548 PB L 82232 "Diazobrillantscharlach B O A extra." 1946. In German. 2.00
From o - anisidine, 2 - naphthylamine, and 2(4' - aminobenzoyl) - amino - 5 - naphthol - 7 - sulfonic acid.

549 PB L 82232 "Diazobrillantscharlach B O R extra." 1946. In German. 2.00
From xylidine (mixture), o - toluidine, and 2(4' - aminobenzoyl) - amino - 5 - naphthol - 7 - sulfonic acid.

550 PB L 82232 "Diazokeramin B extra." 1946. In German. 2.00
From o - toluidine and 2 - (4' - aminophenyl) - 6 - hydroxynaphtho [2.1] thiazole - 8 - sulfonic acid.

551-552 PB L 82232 "Diazolichtgrün G L." 1946. In German. 2.00
From 1 - amino - 4 - acetamino-naphthalene - 7 - sulfonic acid, 1 - naphthylamine - 6 - sulfonic acid, 2 - anino - 8 - naphthol - 6 - sulfonic acid, and 1 - methylindole.

553-554 PB L 82232 "Diazolichtgrün G F." 1946. In German. 2.00
From 2 - naphthylamine - 5 - sulfonic acid, 1 - amino - 5 - acetoxynaphthalene - 7 - sulfonic acid, and p - amino - benzoyl - γ - acid.

555 PB L 82232 "Diazolichtrot 5 B L." 1946. In German. 2.00
From 4 - amino - azobenzene - 4' - sulfonic acid and 2(3' [4" - amino - benzamido] - benzamido - 5 - naphthol - 7 - sulfonic acid.

556 PB L 82232 "Diazolichtrot 7 B L." 1946. In German. 2.00
From 4 - aminoazobenzene - 4' - sulfonic acid and 2(3'- aminobenzoyl) - amino - 5 - naphthol - 7 - sulfonic acid.

557 PB L 82232 "Diazolichtscharlach B L." 1946. In German. 2.00
From 5(4' - aminobenzamido) - 3 - methyl - 2 - hydroxybenzoic acid and 2(4' - sulfonic benzoylamine) - 5 - naphthol - 7 - sulfonic aicd.

558 PB L 82232 "Diazolichtviolett B L." 1946. In German. 2.00
From 4 - chloroaniline - 2 - sulfonic acid, p - xylidine, and 2 - (4' - aminophenyl) - 6 - hydroxynaphtho [2. 1] thiazole - 8 - sulfonic acid.

559-560 PB L 82232 "Diazolichtviolett 3 R L." 1946. In German. 2.00
From first-named and last-named compounds of preceding item and m - toluidine.

561-562 PB L 82232 "Diazoliv G." 1946. In German. 2.00
From benzidine, salicylic acid, 1 - amino - 8 - naphthol - 4 - sulfonic acid, and N - oxalyl - p - phenylenediamine.

563 PB L 82232 "Paranilbraun R extra." 1946. In German. 2.00
From 2, 6 - toluenediamine and m - phenylenediamine.

564 PB L 82232 "Diazorubin B." 1946. In German. 2.00
From 3, 3' - di(formylamido) - diphenylurea and γ - acid.

565 PB L 82232 "Parabraun G K." 1946. In German. 2.00
From 3, 3' - di(formylamido) - diphenylurea, 1, 3 - phenylenediamine - 4 - sulfonic acid, and resorcinol.

566-567 PB L 82232 "Parabraun R K." 1946. In German. 2.00
From N - formyl - m - phenylenediamine, gamma acid, m - phenylenediamine, and 1, 3 - phenylenediamine - 4 - sulfonic acid.

568 PB L 82232 "Parabronce N G." 1946. In German. 2.00
From N - formyl - m - phenylenediamine, H - acid, and resorcinol.

569 PB L 82232 "Paralichtbraun G R." 1946. In German. 2.00
From 4, 4' - diaminodiphenylurea - 3, 3' - disulfonic acid and m - phenylenediamine.

570-571 PB L 82232 "Paralichtgrün B." 1946. In German. 2.00
From p - nitroaniline and 1 - amino - 8 - naphthol - 4, 6 - disulfonic acid.

572 PB L 82232 "Paraorange G." 1946. In German. 2.00
From 2 - nitro - 4 , 4 ' - diaminobiphenyl, 1, 3 - phenylene-diamine - 4 - sulfonic acid, and phenol.

573-574 PB L 82232 "Diaminnitrazolbraun B D." 1946. In German. 2.00
From 2, 6 - toluenediamine - 4 - sulfonic acid, 1 - naphthylamine - 6 - and - 7 - sulfonic acids, and m - phenylenediamine.

575 PB L 82232 "Diaminnitrazolbraun G." 1946. In German. 2.00
From 1, 5 - naphthylenediamine - 3, 7 - disulfonic acid, m - phenylenediamine, prismulinesulfonic acid, and 2 - (4 - aminophenol) - benzthiazole.

576 PB L 82232 "Diaminnitrazolorange R." 1946. In German. 2.00
From 4,4'-diaminodiphenylether-2-sulfonic acid and 3-amino-cresol.

577 PB L 82232 "Sambesirot 4 B." 1946. In German. 2.00
From o-toluidine and "Imidazol-γ-säure" (formula given).

578 PB L 82232 "Diazolichtgrün BFL." 1946. In German. 2.00
From 1-amino benzene-3-sulfonic acid, 1-naphthylamine-7-sulfonic acid, 1-amino-2-naptholethylether-6-sulfonic acid, and m-aminobenzoyl - γ-acid.

579 PB L 82232 "Paragelb RL." 1946. In German. 2.00
From "Parazol-GP-base" (formula given)

and 1(3'nitrophenyl) -5-pyrazolone -3-carboxylic acid.

580 PB L 82232 "Diazobrillantscharlach 3 G." 1946. In German. 2.00
From "Parasol GP-base" (formula given) and 2(4'-amino benzamido)-5-naphthol-7-sulfonic acid.

581 PB L 82232 "Diazobrillantorange 3 G." 1946. In German. 2.00
From 4,4'-(di-p-amino-benzamido)-diphenylurea-3,3'-disulfonic acid and 1(3'nitrophenyl)-5-pyrazolone-3-carboxylic acid.

582 PB L 82232 "Diazobrillantscharlach 5 BLH extra." 1946. In German. 2.00
From 4-amino-1(4'aminobenzamido)-benzene, salicylic acid, and p-amino benzoyl-γ-acid.

583 PB L 82232 "Diazobrillantorange GG extra." 1946. In German. 2.00
From "Parozol GP base" - formula given-, 1(3'-nitrophenyl)-5-pyrazolone-3-carboxylic acid, and 1(3'-aminophenyl)-3-methyl-5-pyrazolone.

584 PB L 82232 "Diazorubin FDD." 1946. In German. 2.00
From 2-naphthylamine-4,8-disulfonic acid, vic. xylidine, and 2(4'-aminobenzamido)-5-naphthol-7sulfosäure.

585 PB L 82232 "Diazobrillantorange RLG." 1946. In German. 2.00
From 3-amino-1(3'-amino-benzamido) benzene and 1-(3'nitrophenyl)-5-pyrazolone-3-carboxylic acid).

586-587 PB L 82232 "Diazobrillantorange GRN extra." 1946. In German. 2.00
From aniline, 2(4'-amino-benzamido)-5-naphthol-7-sulfonic acid and 1-(3-nitrophenyl)-3-carboxy-5-pyrazolone.

588-589 PB L 82232 "Diazolichtviolett TL." 1946. In German. 2.00
From 2,4-dimethyl anilino-6-sulfonic acid, cresidine, and 2(4'-amino benzamido)-5 naphthol-7-sulfonic acid.

590 PB L 82232 "Diazolichtbordo FBL." 1946. In German. 2.00
From aniline-3-sulfonic acid,-3-toluidine, and 2(4'-amino benzamido)-5-naphthol-7-sulfonic acid.

591 PB L 82232 "Diazolichtscharlach FBL." 1946. In German. 2.00
From 5(4'-amino benzamido)-2-hydroxy benzoic acid and 2(4'-amino benzamido) -5-naphthol 7-sulfonic acid.

592 PB L 82232 "Diazobrillantorange GR extra." 1946. In German. 2.00
From aniline and 2(3'(3" aminobenzamido)-benzamido)-5-naphthol-7-sulfonic acid.

593 PB L 82232 "Diazobrillantscharlach 6 B extra." 1946. In German. 2.00
From o-anisidine and "Schwefelrotsäure" (formula given).

594 PB L 82232 "Diazolichtbordo BL." 1946. In German. 2.00
From 4-chloroaniline-2-sulfonic acid, 3-toluidine, and 2(3'-amino benzamido)-5-naphthol-7-sulfonic acid.

595 PB L 82232 "Benzochrombraun B." 1946. In German. 2.00
From benzidine, salicylic acid, and 1-naphthylamine-6-and-7-sulfonic acids.

596 PB L 82232 "Siriuslichtbraun RT." 1946. In German. 2.00
From same constituents as preceding item.

597 PB L 82232 "Benzochrombraun 5 G." 1946. In German. 2.00
From benzidine, salicylic acid, and 2-amino-3-naphthol-6-sulfonic acid.

598 PB L 82232 "Benzochrombraun R." 1946. In German. 2.00
From benzidine, salicylic acid, 1-naphthylamine-6- and 7-sulfonic acid, and 2,4-toluene diamine-5-sulfonic acid.

599 PB L 82232 "Benzochromschwarz G." 1946. In German. 2.00
From o-tolidine, 1-naphthylamine-7-sulfonic acid, 1,8-dihydroxy-naphthalene-4-sulfonic acid, and 2,4-toluene-diamine.

600 PB L 82232 "Benzochromschwarz N." 1947. In German. 2.00
From o-tolidine, 1-naphthylamine-7-sulfonic acid, and 1,8-dihydroxy-naphthalene-4-sulfonic acid.

601 PB L 82232 "Benzochromschwarzblau B." 1947. In German. 2.00
From tolidine, gamma acid, and 1,8-dihydroxynaphthalene-4-sulfonic acid.

602 PB L 82232 "Benzochromschwarzbraun R." 1947. In German. 2.00
From benzidine, salicylic acid, 1-napthylamine-6- and -7-sulfonic acids, and m-phenylenediamine.

603-604 PB L 82232 "Benzoechtkupferblau GL." 1946. In German. 2.00
From 5-amino-2-hydroxybenzoic acid, 1-naphthylamine-7-sulfonic acid, 1-naphthylamine, and 2-amino-5-naphthol-7-sulfonic acid.

605 PB L 82232 "Benzoechtkupferbraun 3 GL." 1946. In German. 2.00
From benzidine-3,3'-dicarboxylic acid, 4'-aminophenyl-1,2-thiazole-5-naphthol-7-sulfonic acid, and acetoacetic o-anisidide.

606 PB L 82232 "Benzoechtkupferviolett BBL." 1946. In German. 2.00
From 4,4'-diaminodiphenyl-3,3'-dicarboxylic acid, 1-naphthol-5-sulfonic acid, and phenyl-γ-acid.

607 PB L 82232 "Benzokupferblau 3F." 1946. In German. 2.00
From bianisidine, 1-naphthol-4-sulfonic acid, and γ-acid.

608 PB L 82232 "Benzokupferblau BB." 1946. In German. 2.00
From first two constituents of preceding item and phenyl-γ-acid.

609 PB L 82232 "Brillantkupferblau GN." 1946. In German. 2.00
From bianisidine, 1-amino-8-naphthol-2,4-disulfonic acid, and phenyl-γ-acid. 2.00

610 PB L 82232 "Diamineralschwarz D." 1946. In German. 2.00
From o-tolidine, salicylic acid, gamma acid, and 1,8-dihydroxynaphthalene-4-sulfonic acid.

611 PB L 82232 "Diamineralbraun G." 1946. In German. 2.00

from benzidine, salicylic acid, 1-naphthylamine-6- and -7-sulfonic acids, and phenol.

612 PB L 82232 "Benzoechtkupferrot RL." 1946. In German. 2.00
From 6-nitro-1-diazo-2-naphthol-4-sulfonic acid, 1(4'-aminophenyl)-3-methyl-5-pyrazolone.

613 PB L 82232 "Benzoechtkupferviolett 3 RL." 1946. In German. 2.00
From 5-nitro-2-aminobenzoic acid and phenyl-γ-acid.

614 PB L 82232 "Diamineralblau CVB." 1946. In German. 2.00
From bianisidine, 1-naphthol-4-sulfonic acid, and γ-acid.

615 PB L 82232 "Benzoechtkupfergelb CGL." 1946. In German. 2.00
From 4,4'-diaminodiphenylurea-3,3'-dicarboxylic acid, acetoacetic 2-anisidide-5-sulfonic acid, and acetoacetic anilide-4-sulfonic acid.

616-617 PB L 82232 "Benzoechtkupfermarineblau RL." 1946. In German. 2.00
From bianisidine, γ-acid, and "Amidotriazolkarbonsäure" (structure given)

618 PB L 82232 "Benzoechtkupferblau FBL." 1946. In German. 2.00
From 4,4'diamino-3,3' di(carboxymethoxy)-biphenyl (formula given, possibly erroneous) and p-anisyl-γ-acid.

619 PB L 82232 "Benzoechtkupfergelb RLN." 1946. In German. 2.00
From 4,4'-diaminodiphenylurea-3,3'-dicarboxylic acid, 1(3'-sulfophenyl)-3-methyl-5-pyrazolone, and acetoacetic anilide.

620 PB L 82232 "Chromsogelb 29424." 1946. In German. 2.00
From 4,4'-diaminostilbene disulfonic acid and salicylic acid.

621 PB L 82232 "Chromsogaorange 2D451." 1946. In German. 2.00
From 4,4'-diaminodiphenyl-3-sulfenic acid, salicylic acid and resorcinol.

622 PB L 82232 "Chromsogarot 29426." 1946. In German. 2.00
From salicylic acid, 4-amino-1-oxalylamido benzene-2-sulfonic acid, and resorcinol.

623 PB L 82232 "Chromsogaschwarzbraun 29427." 1946. In German. 2.00
From 4,4-diaminodiphenyl-3,3'-dicarboxylic acid, salicylic acid, and gamma acid.

624 PB L 82232 "Benzobraun BM." 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid and "Bismarckbraun."

625 PB L 82232 "Benzobraun BR." 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid, 1-naphthylamine, and m-phenylenediamine.

626 PB L 82232 "Benzoformgelb GL." 1946. In German. 2.00
From 4,4'-di(4"-aminobenzamido)-diphenylurea-3,3'-disulfonic acid and 1(3'aminophenyl)-3-methylpyrazolone.

627 PB L 82232 "Benzoformorange G." 1946. In German. 2.00
From first constituent of preceding item and resorcinol.

628 PB L 82232 "Brillantgeramin B." 1946. In German. 2.00
From 2(4'aminophenyl) benzthiazole and 1-hydroxy-8-ethoxynaphthalene-3,6-disulfonic acid.

629 PB L 82232 "Chloraminviolett FFB." 1946. In German. 2.00
From "Dehydrothio-m-xylidine" (formula given) and N-acetyl-H-acid.

630 PB L 82232 "Geranin G." 1946. In German. 2.00
From "Dehydrothio-4-tolnidin" and 1-naphthol-3,6-disulfonic acid.

631 PB L 82232 "Siriusgelb G." 1946. In German. 2.00
From m-amino benzoic acid and o-anisidine-4-methanesulfonic acid.

632 PB L 82232 "Siriuslichtgelb 5 G." 1946. In German. 2.00
From 2(4-aminophenyl)-benzthiazole (formula given) and acetoacetic-o-anisidide.

633 PB L 82232 "Siriuslichtgelb R extra." 1946. In German. 2.00
From 2-naphthylamine-4,8-disulfonic acid and m-toluidine.

634 PB L 82232 "Siriusorange G." 1946. In German. 2.00
From 1-naphthylamine-3,7-disulfonic acid and cresidine.

635-636 PB L 82232 "Siriusrosa BB." 1946. In German. 2.00
From 4,4'-diamino-diphenylurea-3,3'-disulfonic acid and gamma acid.

637-638 PB L 82232 "Thiazolgelb GL." 1946. In German. 2.00
From 4-amino-1-acetamidobenzene and 2-methylindole.

639 PB L 82232 "Siriusgelb GG." 1946. In German. 2.00
From p-nitroaniline and salicylic acid.

640 PB L 82232 "Siriusrosa G." 1946. In German. 2.00
From p-nitroaniline and 2,8-aminonaphthol-3,6-disulfonic acid.

641 PB L 82232 "Baumwollbraun RN." 1946. In German. 2.00
From aniline-4-sulfonic acid, 2,4-diaminotoluene, and "Dehydrothiotoluidinsulfosäure" (apparently 2(4-aminophenyl)-benzthiazole).

642 PB L 82232 "Baumwollgelb R." 1946. In German. 2.00
From primuline sulfonic acid, 2(4-aminophenyl)-benzthiazole, and salicylic acid.

643 PB L 82232 "Baumwollorange G." 1946. In German. 2.00
From first two compounds as for preceding item and 1,3-diaminobenzene-4,6-disulfonic acid.

644 PB L 82232 "Baumwollorange R." 1946. In German. 2.00
From the same two compounds, aniline-3-sulfonic acid, and 1,3-diaminobenzene-4-sulfonic acid.

645 PB L 82232 "Diaminkatechu." 1946. In German. 2.00
From 1,5-diaminonaphthalene-3,7-disulfonic acid and 1-naphthylamine.

646 PB L 82232 "Diaminorange B." 1946. In German. 2.00
From primuline sulfonic acid, 2(4-

aminophenyl)-benzthiazole, and salicylic acid.

647 PB L 82232 "Diaminrosa M extra." 1946. In German. 2.00
From "Dehydrothio-4-toluidin" and 8-chloro-naphthol-3,6-disulfonic acid.

648 PB L 82232 "Thiazolgelb G." 1946. In German. 2.00
From 2-(4-aminophenyl)-benzthiazole.

649 PB L 82232 "Thiazinbraun G." 1946. In German. 2.00
From aniline-4-sulfonic acid, primuline-sulfonic acid, 2-(4-aminophenyl)-benzthiazole, and resorcinol.

650 PB L 82232 "Igenalbraun GRG." 1946. In German. 2.00
Identical with preceding item; no description.

651 PB L 82232 "Thiazinbraun R." 1946. In German. 2.00
From primuline sulfonic acid, 2-(4-aminophenyl)-benzthiazole, resorcinol, and 2-naphthylamine-5-and-8-sulfonic acids.

652 PB L 82232 "Thiazinrot R." 1946. In German. 2.00
From 2(4-aminophenyl)-benzthiazole and 1-naphthol-4-sulfonic acid.

653 PB L 82232 "Erika BN." 1946. In German. 2.00
From "Thioxylidine" (structure given) and 1-naphthol-3,8-disulfonic acid.

654 PB L 82232 "Benzobraun 3 GC." 1946. In German. 2.00
From 2(4-aminophenyl)-benzthiazole, aniline, and resorcinol.

655-656 PB L 82232 "Siriuslichtrotviolett RL." 1946. In German. 2.00
From 5-nitro-2-anisidine-4-sulfonic acid and 2-naphthol-6-sulfonic acid.

657 PB L 82232 "Benzoviskoseblau RL." 1946. In German. 2.00
From bianisidine and 1-naphthol-3,8-disulfonic acid.

658 PB L 82232 "Siriuslichtbraun BRS." 1946. In German. 2.00
From benzidine, salicylic acid, and "Braunbasis."

659 PB L 82232 "Siriusgelb GC." 1946. In German. 2.00
From "Siriusgelb GC" bases "A" and "B."

660 PB L 82232 "Benzoechtrot BB." 1946. In German. 2.00
From benzidine, 3-methyl-2-hydroxy-benzoic acid, and 2-acetamido-5-naphthol-7-sulfonic acid.

661-662 PB L 82232 "Siriusrot F3B." 1946. In German. 2.00
From 4-amino azobenzene-3,4'-disulfonic acid and acetyl-γ-acid.

663 PB L 82232 "Neutralgrau GF." 1946. In German. 2.00
From aniline, 1-naphthylamine, and gamma acid.

664 PB L 82232 "Siriuslichtblau 3RL." 1946. In German. 2.00
From 4,4'-diaminodiphenyl-3,3'-dicartoxylic acid and 3-carboxy-phenyl-γ-acid.

665 PB L 82232 "Siriuslichtblau FBGL." 1946. In German. 2.00
From bianisidine, 1-naphthol-3,8-disulfonic acid, and phenyl-γ-acid.

666 PB L 82232 "Diaminbrillantblau G." 1946. In German. 2.00
From bianisidine, 1-chloro-8-naphthol-3,6-disulfonic acid, and 1-naphthol-4-sulfonic acid.

667 PB L 82232 "Dianilchrombraun G". 1946. In German. 2.00
From benzidine, salicylic acid, 1-naphthylamine-6- and -7-sulfonic acids, and phenol.

668 PB L 82232 "Benzobraun GG". 1946. In German. 2.00
From aniline-3- and -4-sulfonic acids, 1-naphthylamine, and m-phenylenediamine.

669 PB L 82232 "Oxydiamingelb TZM". 1946. In German. 2.00
From 2-(4-aminophenyl)-benzthiazole and primuline sulfonic acid.

670 PB L 82232 "Siriuslichtgelb RK". 1946. In German. 2.00
From "Kresoläther violett" and "Para-GP-base".

671 PB L 82232 "Benzoformbraun FC". 1946. In German. 2.00
From p-aminobenzoyl-p-phenylenediamine, salicylic acid, gamma acid, and m-phenylenediamine.

672 PB L 82232 "Siriuslichtbraun 3 RL". 1946. In German. 2.00
From p-sulfanilic acid, 1-naphthylamine -6-sulfonic acid, and "Anilin-ω-methansulfosäure".

673-674 PB L 82232 "Nitrazolschwarz M". 1946. In German. 200
From 1-amino-5-naphthol-7-sulfonic acid, cresidine, 1-benzamido-8-naphthol-4-sulfonic acid, and 1-amino-8-naphthol-4-sulfonic acid.

675 PB L 82232 "Cellitechtrot B". 1946. In German. 2.00
From 2,4-dinitroaniline and "Benzylanilin -2-sulfosäure".

676 PB L 82232 "Cellitechtrot RB". 1946. In German. 2.00
From 4-nitroaniline and ethylbenzyl-3-toluidine-3'-sulfonic acid.

677 PB L 82232 "Beizengelb RL". 1946. In German. 2.00
From 1-naphthylamine-4-sulfonic acid and salicylic acid.

678 PB L 82232 "Helioechtviolett RRL". 1946. In German. 2.00
From 2-aminobenzoic acid and 2-naphthylamine-7-sulfonic acid.

679 PB L 82232 "Eukanolbrillantorange O". 1946. In German. 2.00
From "Benzolichtorange G", which from benzidine, salicylic acid, 2-(3'-methyl-5'-pyrazolone)-naphthalene-5,7-disulfonic acid, and 1(3' sulfophenyl)-3-methyl-5-pyrazolone.

680 PB L 82232 "Eukanolbrillantbraun O". 1946. In German. 2.00
Ammonium salt of "Siriuslichtbraun RT". (see frame 596 above).

681 PB L 82232 "Eukanolbrillantscharlach O". 1946. In German. 2.00
Ammonium salt of "Siriusrot PB" (see frames 302-303 above).

682-685 PB L 82232 — Standardization of "Rapidogen" dyes. n.d. In German. Mixing formulas for 32 "Rapidogen" dyes. 2.00

686 PB L 82232 — "Azoblausalz BB". 1946. In German. From 2-amino-5-benzamido-hydroquinone-diethylether, methylamino acetic acid, and 2-methylamino ethane sulfonic acid. 2.00

687 PB L 82232 — "Azoblausalz MO". 1946. In German. From bianisidine and methylamino ethane sulfonic acid. 2.00

688 PB L 82232 — "Azoblausalz RR". 1946. In German. From 2-amino-5-benzamido hydroquinone-dimethylether and 2-methylamido-ethane sulfonic acid. 2.00

689 PB L 82232 — "Azokorinthsalz 'B". 1946. In German. From 4-benzamido-6-chloro-m-anisidine and 2-methylamido-5-sulfo-1-benzoic acid. 2.00

690 PB L 82232 — "Azoorangesalz GC". 1946. In German. From m-chloroaniline and 4-sulfo-2-aminobenzoic acid. 2.00

691 PB L 82232 — "Azoorangesalz GGD". 1946. In German. From 3,5-bistrifluoromethyl aniline and 2-ethylamino-5-sulfobenzoic acid. 2.00

692 PB L 82232 — "Azoorangesalz RD". 1946. In German. From 2-chloro-5-trifluoromethyl-aniline and 2-ethylamino-5-sulfo-1-benzoic acid. 2.00

693 PB L 82232 — "Azorotsalz B". 1946. In German. From 5-nitro-2-anisidine and 2-methylamino-5-sulfo-1-benzoic acid. 2.00

694 PB L 82232 — "Azorotsalz GR". 1946. In German. From 2(N',N'-dimethylamino)-p-toluenesulfonamide and 2-methylamino -5-sulfo benzoic acid. 2.00

695 PB L 82232 — "Azorotsalz JTR". 1946. In German. From 2-anisidine-4-sulfodiethylamine and 2-ethylamino-5-sulfo-1-benzoic acid. 2.00

696 PB L 82232 — "Azorotsalz KR". 1946. In German. From 5-chloro-toluidine and 2-amino-4-sulfo-benzoic acid. 2.00

697 PB L 82232 — "Azorotsalz KRS". 1946. In German. From 4-chloro-2-toluidine and methylamino acetic acid. 2.00

698 PB L 82232 — "Azorotsalz PTS". 1946. In German. From p-toluidine and methylamino-acetic acid. 2.00

699 PB L 82232 — "Azorotsalz RC". 1946. In German. From 4-chloro-2-anisidine and methylamino acetic acid. 2.00

700 PB L 82232 — "Azorotsalz RLN". 1946. In German. From 5-nitro-2-toluidine and 2-ethylamino-5-sulfo-1-benzoic acid. 2.00

701 PB L 82232 — "Azorotsalz TR". 1946. In German. From 5-chloro-2-toluidine and 2-methylamino-ethanesulfonic acid. 2.00

702 PB L 82232 — "Azorotviolettsalz R". 1946. In German. From 5-methyl-4-nitro-o-anisidine and 5-sulfo-2-ethylamino-1-benzoic acid. 2.00

703 PB L 82232 — "Azoscharlachsalz GG". 1946. In German. From 2,5-dichloroaniline and 5-sulfo-2-ethylamino-1-benzoic acid. 2.00

704 PB L 82232 — "Azovariaminblausalz B". 1946. In German. From 4-amino-4'-methoxy-diphenylamine and methylamino-acetic acid. 2.00

705 PB L 82232 — "Azoviolettsalz B". 1946. In German. From 4-methyl-5-benzoylamido-o-anisidine and sarcosine. 2.00

706 PB L 82232 — "Diazosalz 3R". 1946. In German. From 5-chloro-2-toluidine and 4-sulfo-2-amino benzoic acid. 2.00

707 PB L 82232 — "Echtgrau BF-F". n.d. In German. From nitroso-dimethylaniline. 2.00

708 PB L 82232 — "Methylengrau B neu F". n.d. In German. From nitroso-dimethylaniline. 2.00

709-710 PB L 82232 — "Rhodulinbase 5B". n.d. In German. From ethyl-o-toluidine and o-chlorobenzaldehyde. 2.00

711-712 PB L 82232 — "Rhodulinblau 6 G". n.d. In German. From N-dimethylaniline and o-chloro benzaldehyde. 2.00

713-714 PB L 82232 — "Rhodulinblau R". n.d. In German. From "Hydrol" and m-acetamido- N-diethylaniline. 2.00

715-716 PB L 82232 — "Türkisblau G". n.d. In German. From "Hydrol" and p-nitrotoluene. 2.00

717 PB L 82232 — "Astraphloxin FF extra". n.d. In German. From "Trimethylbase" and sodium formate. 2.00

718 PB L 82232 — "Astraviolett FF extra". n.d. In German. From "Anidotrimethylbase" and sodium formate. 2.00

719-722 PB L 82232 — "Brillant Reinblau 8 G extra". n.d. In German. From 1-naphthylamine, p-rosaniline, and benzoic acid. 2.00

723-725 PB L 82232 — "Brillant Reinblau 2 BM". n.d. In German. From 2-naphthylamine, p-rosaniline and benzoic acid. 2.00

726-728 PB L 82232 — "Brillant Reinblau BM". n.d. In German. From same compounds as preceding item. 2.00

729-732 PB L 82232 — "Wollechtblau BL", "FFG","GL", and "Wollechtviolett B". n.d. In German. These dyes are produced from "Dianilido-Epsilonsäure" ("BL" and "FFG") and "Diphenyl -E-säure" ("GL" and "B") with derivatives of p-phenylene diamine. Formulas given. 2.00

733-736 PB L 82232 — "Indocyanin B". n.d. In German. From phenyl-2-naphthylamin, "Nitroso-grünöl", p-amino diethylaniline, and nitrosodiethylaniline. 2.00

737-738 PB L 82232 — "Säurecyanin BF". n.d. In German. From "Nitrophenyl paraminsäure, "Grünanilinsulfosäure," and sulfanilic acid. 2.00

739 PB L 82232 — "Wollechtblau FFG". see Frames 729-732. 2.00

Dyes (contd)

740-742 PB L 82232 "Echtwollblau FB". n.d. In German. From "Blau II EB", which from "Blau I EB". Formula given. 2.00

743-745 PB L 82232 "Supraminblau BG". n.d. In German. From "Blau II BG", which from "Blau I BG". Formula given. 2.00

746 PB L 82232 "Guinesgrün B". n.d. In German. From "Brillant sulfosäure" and benzaldehyde. 2.00

747-748 PB L 82232 "Lichtgrün SF gelblich". nd. In German. From "Aethylbenzyl anilin" and benzaldehyde. 2.00

749-750 PB L 82232 "Säuregrün konz F. extra". n.d. In German. From same compounds as preceding item. 2.00

751-755 PB L 82232 "Alkaliechtgrün 2BF" and "3 BX". n.d. In German. From dimethylaniline, m-nitrobenzaldehyde, and di-nitro-chloro benzene. 2.00

756-757 PB L 82232 "Alkaliechtgrün 10 G". n.d. In German. From ethylbenzyl -m-toluidine-sulfonic acid and o-chloro benzaldehyde. 2.00

758-759 PB L 82232 "Brillant Indocyanin 6 B". n.d. In German. From ethyl benzyl aniline sulfonic acid, p-chloro benzaldehyde, and phenetidine. 2.00

760-761 PB L 82232 "Brillant Indocyanin G". n.d. In German. From "Sulfosäuregrün" and p-phenetidine. 2.00

762-763 PB L 82232 "Brillant Säureblau 3". n.d. In German. From benzyl -o-toluidine and o-chloro benzaldehyde. 2.00

764 PB L 82232 "Brillantsäuregrün 6 B". n.d. In German. From ethyl benzyl anilins sulfonic acid and o-chloro benzaldehyde. 2.00

765-768 PB L 82232 "Brillant Wollblau FFB extra". n.d. In German. From ethylbenzyl-m-toluidine, benzaldehyde, and aniline. 2.00

769-770 PB L 82232 "Brillant Wollblau FFR extra". n.d. In German. From ethylbenzyl-m-toluidine sulfonic acid and p-diethylamino benzaldehyde. 2.00

771-774 PB L 82232 "Echtgrün bläulich". n.d. In German. From dimethylanilin, m-nitro benzaldehyde, and benzyl chloride. 2.00

775 PB L 82232 "Echtlichtgrün". n.d. In German. From same compounds as preceding item. 2.00

776-777 PB L 82232 "Säurebrillantblau R extra". n.d. In German. From ethyl-m-tolyltaurine and p-dimethyl amino benzaldehyde. 2.00

778-779 PB L 82232 "Brillant Indocyanin 7 BF". n.d. In German. From butylphenyltaurine, "p-Chloraldehyde", and p-phenetidine. 2.00

780-782 PB L 82232 "Säureviolett 5 BL". n.d. In German. From o-tolyltaurine, p-chloro-benzaldehyde, and p-phenetidine. 2.00

783-784 PB L 82232 "Säureviolett 4 BL". n.d. In German. From dibenzylaniline and hydrol. 2.00

785-786 PB L 82232 "Alkaliviolett R". n.d. In German. From methyl benzylaniline, hydrol, and "Methylgrünsäure. 2.00

787-788 PB L 82232 "Brillant-Lackblau G extra". n.d. In German. From diphenylamine-monosulfonic acid and formaldehyde. 2.00

789-790 PB L 82232 "Echtsäureviolett 10 B". n.d. In German. From ethyl benzylaniline with monohydrate and hydrol. 2.00

791 PB L 82232 "Säureviolett BW". n.d. In German. From benzylaniline-o-sulfonic acid. 2.00

792 PB L 82232 "Formylviolett S 4 B". n.d. In German. Like "S4 BB" (fr. 803-804) except that di-ethylaniline is used. 2.00

793-794 PB L 82232 "Säureviolett C 2 B". n.d. In German. From ethyl benzylaniline and formaldehyde. 2.00

795-796 PB L 82232 "Brillant Walkblau B". n.d. In German. From the above compounds. 2.00

797-798 PB L 82232 "Säureviolett R extra ". n.d. In German. From methylbenzylaniline sulfonic acid, mono-ethyl-o-toluidine, formaldehyde, and benzyl-o-toluidine-sulfonic acid. 2.00

799 PB L 82232 "Wollgrün BS". n.d. In German. From R-salt and hydrol. 2.00

800 PB L 82232 "Brillant Säureviolett 6 B". n.d. In German. From butylphenyltaurine, formaldehyde, and diethylaniline. 2.00

801-802 PB L 82232 "Guineaviolett R". n.d. In German. From ethylbenzyl aniline, formaldehyde, diethylaniline, and monoethyl -o-toluidine. 2.00

803-804 PB L 82232 "Formylviolett S4 BN". n.d. In German. From ethyl benzylaniline and dimethylamine. 2.00

805 PB L 82232 "Indulin grünlich". n.d. In German. From "Indulinbase 5 BZ." 2.00

806 PB L 82232 "Indulin R extra". n.d. In German. From "Indulin base RX." 2.00

807 PB L 82232 "Indulin 6 B". n.d. In German. Slight-variation of "Grünlich", fr. 805, above. 2.00

808 PB L 82232 "Nigrosin NBV". n.d. In German. Slight variation of "MLF", fr. 810-812 below. 2.00

809 PB L 82232 "Nigrosin GF" water soluble. n.d. In German. From "Nigrosinbase G". 2.00

810-812 PB L 82232 "Nigrosin MLF". n.d. In German. From aniline and anthracene residue in nitrobenzene. 2.00

813 PB L 82232 "Chromogenviolett B". n.d. In German. From "Chromoxanbrillantviolett SB" (fr 817-820 below). 2.00

814 PB L 82232 "Chromoxanblau R" and "RD", "Chromoxanviolett RS". n.d. In German. From methylene cresotic acid and R-salt. 2.00

815 PB L 82232 "Chromoxanbraun 5 R". n.d. In German. 2.00
From methylene cresotic acid and pyrazolone.

816 PB L 82232 "Chromoxanbrillantviolett BD". n.d. In German. 2.00
From following item by sulfonation.

817-820 PB L 82232 "Chromoxanbrillantviolett SB". n.d. In German. 2.00
From benzaldehyde, o-cresotic acid, and p-toluidine.

821 PB L 82232 "Chromoxanreinblau B". n.d. In German. 2.00
From 2,6-dichlorobenzaldehyde and o-cresotic acid.

822-823 PB L 82232 "Chromoxanreinblau BLD". n.d. In German. 2.00
From same compounds as preceding item.

824 PB L 82232 "Chromoxanviolett R". n.d. In German. 2.00
From methylene cresotic and o-cresotic acids.

825-826 PB L 82232 "Chromtürkisblau B". n.d. In German. 2.00
From p-toluic acid and hydrol.

827 PB L 82232 "Metachromviolett 2 R". n.d. In German. 2.00
From dimethylaniline and o-cresotic acid.

828 PB L 82232 "Radiochromblau B". n.d. In German. 2.00
From trichloro benzaldehyde and o-cresotic acid.

829 PB L 82232 "Radiochromgrün B". n.d. In German. 2.00
Previous item mixed with azo dye from aniline and o- cresotic acid.

830 PB L 82232 "Chromoxancyanin R". n.d. In German. 2.00
From o-sulfo benzaldehyde and "o-Methylsäure".

831 PB L 82232 "Chromoxanbrillantviolett RS". n.d. In German. 2.00
From p-diethylamino benzaldehyde and o-cresotic acid.

832 PB L 82232 "Chromoxanbrillantviolett 5 R". n.d. In German. 2.00
From aldehyde o-cresotic acid and o-tolyltaurine.

833 PB L 82232 "Coelestinblau B". n.d. In German. 2.00
From gallamine and nitroso-diethyl-aniline.

834 PB L 82232 "Gallaminblau" powder. n.d. In German. 2.00
From gallamine and nitroso-dimethyl-aniline.

835 PB L 82232 "Gallocyanin". n.d. In German. 2.00
From gallic acid and nitroso-dimethyl-aniline.

836 PB L 82232 "Metacoelestinblau". n.d. In German. 2.00
Similar to "B", frame 833 above.

837 PB L 82232 "Cellitonechtgelb 7G-F". n.d. In German. 2.00
From butyl chloro aldehyde, and cyano acetic acid - ethyl ester.

838 PB L 82232 "Nigrosinbase BR". n.d. In German. 2.00
Slight modification of "L 2425", frame 841 below.

839-840 PB L 82232 "Nigrosinbase BR". n.d. In German. 2.00
From aniline and nitrobenzene.

841 PB L 82232 "Nigrosinbase L 2425". n.d. In German. 2.00
From aniline and nitrobenzene.

842 PB L 82232 "Schwarzbase NC". n.d. In German. 2.00
From aniline and nitrobenzene.

843-846 PB L 82232 "Brillanigpritschwarz BM", "BM neu" and "BN". n. d. In German. 2.00
From aniline and nitrobenzene.

847 PB L 82232 "Heliomarin BL" powder. n.d. In German. 2.00
From "Heliocchtblau BL" and "Methylenblau BB".

848 PB L 82232 "Supranolblau GG". n.d. In German. 2.00
From 1-amino -4- bromo - anthraquinone-2-sodium sulfonate and p,p'-diamino-diphenyl dimethyl methane.

849-851 PB L 82232 "Alizarin astrol B". n.d. In German. 2.00
From 1-amino-4-bromo-anthraquinone -2-sulfonic acid (production described) and p-toluidine.

852-853 PB L 82232 "Alizarin astrolviolett B". n.d. In German. 2.00
From 4-p-toluido-1, 9-N-methyl-anthrapyrimidone, production of which is also described.

854-855 PB L 82232 "Alizarin Brillant Reinblau R". n.d. In German. 2.00

856-857 PB L 82232 "Alizarincyaningrün G extra". n.d. In German. 2.00
From 1,4-di-p-toluido-anthraquinone (described).

858 PB L 82232 This page contains only a statement that "Alizarincyaningrün 3 G" is identical with "Brillant alizarin-viridin F"(frame 948 below). In German. 2.00

859-861 PB L 82232 "Alizarin Direktgrün 5 G". n.d. In German. 2.00
From 1,4-di-p-toluido-5,8-dihydroxy-anthraquinone (described).

862-863 PB L 82232 "Anthralanviolett 3 R". n.d. In German. 2.00
From 1,4-diamino-2,3-diphenoxy - anthraquinone (described.)

864-865 PB L 82232 "Anthralanviolett 3 B". n.d. In German. 2.00
From 1-p-toluido-4-hydroxy-anthraquinone (described).

866-868 PB L 82232 "Alizarinreinblau B" and "G". n.d. In German. 2.00
From 1-amino-2-bromo-4-p-toluido-anthraquinone (described).

869-870 PB L 82232 "Anthralanrot BBT". n.d. In German. 2.00
From 4-anilino -1,9-N-methyl-anthra-pyridone (described).

871-872 PB L 82232 "Anthralanrot 3 B". n.d. In German. 2.00
From 4-p-toluido -1,9- N-methyl-anthrapyridone (described).

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Dyes (contd)

873-874 PB L 82232 "Pyridon" crude and pure. n.d. In German. 4-bromo-1,9-N-methyl-anthrapyridone. 2.00

875-876 PB L 82232 "Alizarin Saphirol A". n.d. In German. From 1-amino-4-bromo-anthraquinone -2-sodium sulfonate (see f. 849, above). 2.00

877-879 PB L 82232 "Alizarin Saphirol R" and "B" and "Helioechtblau BL". n.d. In German. From 1,5-dihydroxy anthraquinone. 2.00

880-881 PB L 82232 "Alizarin-Saphirol SE" and "SES". n.d. In German. From "Alizarin Saphirol R", see preceding item. 2.00

882-885 PB L 82232 "Alizarin Uranol 2 B". n.d. In German. From 1,4-diamino-5-nitro-anthraquinone (described). 2.00

886-889 PB L 82232 "Anthrachinonblau SR extra". n.d. In German. From mixture of diamino-tetrachloro-anthraquinones (described). 2.00

890-891 PB L 82232 "Anthrachinonviolett". n.d. In German. From 1,8-and 1,5-di-p-toluido-anthraquinone. 2.00

892-896 PB L 82232 "Cyananthrol RBX" and "RXOF". n.d. In German. From 1-amino-2-methyl-4-p-toluido-anthraquinone (described). 2.00

897-898 PB L 82232 "Alizarin-Saphirol R". n.d. In German. From 1,5-dihydroxy-anthraquinone (described). For completion of process, see f. 877 above. 2.00

899-902 PB L 82232 "Alizarin Reinblau NA". n.d. In German. From 1,5-ditoluido-4,8-diamino-3,7-dibromo-anthraquinone (described). 2.00

903 PB L 82232 "Alizarin Irisol RL". n.d. In German. From 1,4-diamino-2,3-dichloro-anthraquinone. 2.00

904-905 PB L 82232 "Anthralanviolett 4 BF". n.d. In German. From 1,4-diamino-2-phenoxy- anthraquinone-3-sodium sulfonate (described). 2.00

906 PB L 82232 "Alizarin Reinblau FFG". n.d. In German. By sulfonation of "Alizarin Reinblau B". 2.00

907-908 PB L 82232 "Alizarin Cyaningrün GT". n.d. In German. From 1,4-di-p-amino-diphenyl anthraquinone (described). 2.00

909-911 PB L 82232 "Alizarin Brillant Reinblau G". n.d. In German. From 1-amino-4-bromo-5-acetamido-anthraquinone-2-sodium sulfonate (described). 2.00

912-914 PB L 82232 "Alizarin Direktblau GG". n.d. In German. From same compound and p-amino acetanilide and urea. 2.00

915-916 PB L 82232 "Alizarin Brillant Reinblau SE". n.d. In German. From 1,4-di-β- (1,2,3,4-tetrahydronaphthyl-amino)-anthrachinon" (described). 2.00

917-918 PB L 82232 "Alizarin Cyaningrün GWA". n.d. In German. From p-amino hexahydro biphenyl and dihydroxyanthraquinone. 2.00

919-920 PB L 82232 "Alizarin Blauschwarz B". n.d. In German. From 1-hydroxy-2,10-(or 3,10-) dianilino -4,9-anthraquinone (described). 2.00

921-923 PB L 82232 "Alizarin Cyanin BBS". n.d. In German. From 1,2,4,5,6,8-hexahydroxy anthraquinone (described). 2.00

924-925 PB L 82232 "Alizarin Cyanin GG". n.d. In German. From "Alizarin Cyanin RG base" which from 1,2,4,5,8-pentahydroxyanthraquinone and salicylic acid. 2.00

926-927 PB L 82232 "Alizarin Cyanin NS". n.d. In German. From mixed dinitroanthraquinone. 2.00

928-929 PB L 82232 "Alizarin Cyanin NSG". n.d. In German. From 1,5- and 1,8-dinitroanthraquinone. 2.00

930-934 PB L 82232 "Alizarin Cyanin RR" and "3 RS". n.d. In German. From 1,2,5,8-tetrahydroxy-anthraquinone. 2.00

935-936 PB L 82232 "Alizarin Echtschwarz T". n.d. In German. From "Blauschwarz B base" = 1-hydroxy -2,10 -(or 3,10-) dianilino-4-9-anthraquinone (919-920 above). 2.00

937-938 PB L 82232 "Alizarin Lichtbraun GL". n.d. In German. From 1,1'-dianthraquinonylimide (described). 2.00

939-941 PB L 82232 "Alizarin Lichtblau 2 BL". n.d. In German. From 4,4'-diamino-1,1'-dianthraquinonylamine (described). 2.00

942 PB L 82232 "Alizarin Rot T". n.d. In German. From alizarin. 2.00

943-944 PB L 82232 "Alizarin Viridin FF". n.d. In German. From "Viridin" = 1,2-dihydroxy-5,8-di-(p-toluido)-anthraquinone (described). 2.00

945-946 PB L 82232 "Brillant Alizarin Bordo R". n.d. In German. From 1,2-dihydroxy anthraquinone. 2.00

947 PB L 82232 "Brillant Alizarin Cyanin 3 G". n.d. In German. From 1,5-and 1,8-dinitro-anthraquinone. 2.00

948-949 PB L 82232 "Brillant Alizarin Viridin F". n.d. In German. From 1,4-di-p-toluido -8-hydroxy - anthraquinone. 2.00

950 PB L 82232 "Alizarin Lichtgrau BBLN". n.d. In German. From 4,4'-diamino -1,1'-dianthraquinonylamine. 2.00

951-953 PB L 82232 "Indanthrenblau 5 G". n.d. In German. From 1-amino-2-bromo-4-hydroxy - anthraquinone (described). 2.00

954-955 PB L 82232 "Indanthrenbraun BR". n.d. In German. From 1,4-di-(1-anthraquinonylamino)-anthraquinone (described). 2.00

Dyes (contd)

956-958 PB L 82232 "Indanthren Braun FFR", n.d. In German. 2.00
From 1-benzoylamino-5-amino-anthraquinone and 1-benzoylamino-4-chloro-anthraquinone.

959-960 PB L 82232 "Indanthrenbrillantviolett BBK", n.d. In German. 2.00
From 1-benzamido-5-p-methoxy-benzamido-4,8-dihydroxy-anthraquinone.

961-962 PB L 82232 "Indanthrenbrillantviolett RK", n.d. In German. 2.00
From 4,8-di-(p-methoxy benzamido)-1,5-dihydroxy-anthraquinone (described).

963 PB L 82232 "Indanthrenkorinth RK", n.d. In German. 2.00
From 1-amino-4-benzamido-anthraquinone and 2-chloroanthraquinone.

964 PB L 82232 "Indanthrengelb GK", n.d. In German. 2.00
From 1,5-dibenzamido-anthraquinone.

965-966 PB L 82232 "Indanthrengelb 3 GF", n.d. In German. 2.00
From 5,5'-dibenzamido-anthraquinone and oxalylchloride.

967-968 PB L 82232 "Indanthren Goldorange 3 G", n.d. In German. 2.00
From 5,5'-dibenzamido-1,1'-dianthraquinonylamine.

969-970 PB L 82232 "Indanthrengrau K", n.d. In German. 2.00
From 4,4'-dibenzamido-1,1'dianthrimide.

971-972 PB L 82232 "Indanthrengrün BB", n.d. In German. 2.00
From 4,4'-diamino -3,3'-dichloro-1,2'-2,1'-indanthrene.

973-974 PB L 82232 "Indanthren Oliv R", n.d. In German. 2.00
From 4,4'-diamino-1,1'-dianthrimid and benzoylchloride.

975-976 PB L 82232 "Indanthrenrot 5 GK", n.d. In German. 2.00
From 1,4-di-benzamido-anthraquinone (described).

977-981 PB L 82232 "Indanthrenrotbraun 5 RF", n.d. In German. 2.00
From 5-benzamido -8- methoxy-4'-benzamido-1,1'-dianthraquinonylamine, production described.

982-984 PB L 82232 "Indanthrenscharlach R", n.d. In German. 2.00
From p-anisidine and perylene tetracarboxylic acid anh.

985-986 PB L 82232 "Indanthren Gelb 5 GK", n.d. In German. 2.00
From 1-amino-anthraquinone and isophthaloylchloride.

987-988 PB L 82232 "Indanthren Oliv 3 G", n.d. In German. 2.00
From 1 (4-phenyl-benzamido)-anthraquinone (described).

989-990 PB L 82232 "Indanthrenorange 7 RK", n.d. In German. 2.00
From 1',1"-di-anthraquinonyl - 2,6-diamino-anthraquinone (described).

991-993 PB L 82232 "Algolbrillantgrün BK", n.d. In German. 2.00
From 9-chloro-2-bromo-naphthoindole-2(2',4'-methoxy naphthol) indigo (described).

994 PB L 82232 "Algolscharlach B", n.d. In German. 2.00
From perylene - 3,4,9,10 - tetracarboxy - di-p-chloroanilide.

995 PB L 82232 "Helioechtblau BL", Description not here but on frame 887.

996-997 PB L 82232 "Helioechtgelb 6GL", n.d. In German. 2.00
From 1-amino-anthraquinone, salicylic acid, and thionylchloride.

998-1001 PB L 82232 "Helioechtrosa RL", n.d. In German. 2.00
From 1-hydroxy-4-benzamido-anthraquinone (described).

1002-1006 PB L 82232 "Helioechtrubin 4 BL", "3BL", and "6 BL", n.d. In German. 2.00
From "Rotoehl" = 1,4-dihydroxy-anthraquinone.

1007 PB L 82232 "Helioechtrubin FF extra", n.d. In German. 2.00
From 1,4-dihydroxy-2-phenoxy-anthraquinone (described).

1008 PB L 82232 "Sudanblau G", 1938. In German. 2.00
1-Methyl-amino-4-p-toluido-anthraquinone.

1009-1010 PB L 82232 "Alizarin Cyanin Grün" fat soluble. n.d. In German. 2.00
1,4-Di-p-toluido - anthraquinone.

1011 PB L 82232 "Sudangrün BB", n.d. In German. 2.00
1,4-Di-p-toluido -8-hydroxy - anthraquinone.

1012-1013 PB L 82232 "Sudanviolett BR", n.d. In German. 2.00
Cheifly 1,8-and 1,5-ditoluido - anthraquinone (described).

1014-1015 PB L 82232 "Rauchorange G", n.d. In German. 2.00
1-Amino-anthraquinone (described).

1016 PB L 82232 "Chloramin braun base", 1946. In German. 2.00
From primuline-sulfonic acid, 2(4-amino phenyl)-benzthiazole, 1-naphthylamine-6-and-7-sulfonic acids and phenol.

1017 PB L 82232 "Diamantschwarz base" 1946. In German. 2.00
From o- and p- amino-salicylic acids and 1-naphthylamine.

1018 PB L 82232 "Diamilblau G" intermediate. In German. 2.00
Description not here but on frame 443.

1019 PB L 82232 "Kresolätherviolett" intermediate. 1946. In German. 2.00
From p-sulfanilic acid and cresidine.

1020-1021 PB L 82232 "Sudangelb R", n.d. In German. 2.00
Amino azobenzene; production described.

1022-1023 PB L 82232 "Sudangelb RR", "Echtgranat GBC", n.d. In German. 2.00
Amino azo toluene; described.

1024-1026 PB L 82232 "Sudangelb BBN". n.d. In German. 2.00
o-Amino azo-toluene and amino azo-toluene (mixture).

1027 PB L 82232 "OH - Rot AZ", 1946. In German. 2.00
From o-tolidine, 1-naphthol -3,6-disulfonic acid, and phenol.

Dyes (contd)

873-874 PB L 82232 — "Pyridon" crude and pure. n.d. In German. 4-bromo-1,9-N-methyl-anthrapyridone. — 2.00

875-876 PB L 82232 — "Alizarin Saphirol A". n.d. In German. From 1-amino-4-bromo-anthraquinone -2-sodium sulfonate (see f. 849, above). — 2.00

877-879 PB L 82232 — "Alizarin Saphirol R" and "B" and "Helioechtblau BL". n.d. In German. From 1,5-dihydroxy anthraquinone. — 2.00

880-881 PB L 82232 — "Alizarin-Saphirol SE" and "SES". n.d. In German. From "Alizarin Saphirol R", see preceding item. — 2.00

882-885 PB L 82232 — "Alizarin Uranol 2 B". n.d. In German. From 1,4-diamino-5-nitro-anthraquinone (described). — 2.00

886-889 PB L 82232 — "Anthrachinonblau SR extra". n.d. In German. From mixture of diamino-tetrachloro-anthraquinones (described). — 2.00

890-891 PB L 82232 — "Anthrachinonviolett". n.d. In German. From 1,8-and 1,5-di-p-toluido-anthraquinone. — 2.00

892-896 PB L 82232 — "Cyananthrol RRY" and "RXOF". n.d. In German. From 1-amino-2-methyl-4-p-toluido-anthraquinone (described). — 2.00

897-898 PB L 82232 — "Alizarin-Saphirol R". n.d. In German. From 1,5-dihydroxy-anthraquinone (described). For completion of process, see f. 877 above. — 2.00

899-902 PB L 82232 — "Alizarin Reinblau NA". n.d. In German. From 1,5-ditoluido-4,8-diamino-3,7-dibromo-anthraquinone (described). — 2.00

903 PB L 82232 — "Alizarin Irisol RL". n.d. In German. From 1,4-diamino-2,3-dichloro-anthraquinone. — 2.00

904-905 PB L 82232 — "Anthralanviolett 4 BF". n.d. In German. From 1,4-diamino-2-phenoxy- anthraquinone-3-sodium sulfonate (described). — 2.00

906 PB L 82232 — "Alizarin Reinblau FFG". n.d. In German. By sulfonation of "Alizarin Reinblau B". — 2.00

907-908 PB L 82232 — "Alizarin Cyaningrün GT". n.d. In German. From 1,4-di-p-amino-diphenyl anthraquinone (described). — 2.00

909-911 PB L 82232 — "Alizarin Brillant Reinblau G". n.d. In German. From 1-amino-4-bromo-5-acetamido-anthraquinone-2-sodium sulfonate (described). — 2.00

912-914 PB L 82232 — "Alizarin Direktblau GG". n.d. In German. From same compound and p-amino acetanilide and urea. — 2.00

915-916 PB L 82232 — "Alizarin Brillant Reinblau SE". n.d. In German. From 1,4-di-β- (1,2,3,4-tetrahydro-naphthyl-amino)-anthrachinon" (described). — 2.00

917-918 PB L 82232 — "Alizarin Cyaningrün GWA". n.d. In German. From p-amino hexahydro biphenyl and dihydroxyanthraquinone. — 2.00

919-920 PB L 82232 — "Alizarin Blauschwars B". n.d. In German. From 1-hydroxy-2,10-(or 3,10-) dianilino -4,9-anthraquinone (described). — 2.00

921-923 PB L 82232 — "Alizarin Cyanin BBS". n.d. In German. From 1,2,4,5,6,8-hexahydroxy anthraquinone (described). — 2.00

924-925 PB L 82232 — "Alizarin Cyanin GG". n.d. In German. From "Alizarin Cyanin RG base which from 1,2,4,5,8-pentahydroxyanthraquinone and salicylic acid. — 2.00

926-927 PB L 82232 — "Alizarin Cyanin NS". n.d. In German. From mixed dinitroanthraquinone. — 2.00

928-929 PB L 82232 — "Alizarin Cyanin NSG". n.d. In German. From 1,5- and 1,8-dinitroanthraquinone. — 2.00

930-934 PB L 82232 — "Alizarin Cyanin RR" and "3 RS". n.d. In German. From 1,2,5,8-tetrahydroxy-anthraquinone. — 2.00

935-936 PB L 82232 — "Alizarin Echtschwarz T". n.d. In German. From "Blauschwarz B base" = 1-hydroxy -2,10 -(or 3,10-) dianilino-4-9-anthraquinone (919-920 above). — 2.00

937-938 PB L 82232 — "Alizarin Lichtbraun GL". n.d. In German. From 1,1'-dianthraquinonylimide (described). — 2.00

939-941 PB L 82232 — "Alizarin Lichtblau 2 BL". n.d. In German. From 4,4'-diamino-1,1'-dianthraquinonylamine (described). — 2.00

942 PB L 82232 — "Alizarin Rot T". n.d. In German. From alizarin. — 2.00

943-944 PB L 82232 — "Alizarin Viridin FF". n.d. In German. From "Viridin" = 1,2-dihydroxy-5,8-di-(p-toluido)-anthraquinone (described). — 2.00

945-946 PB L 82232 — "Brillant Alizarin Bordo R". n.d. In German. From 1,2-dihydroxy anthraquinone. — 2.00

947 PB L 82232 — "Brillant Alizarin Cyanin 3 G". n.d. In German. From 1,5-and 1,8-dinitro-anthraquinone. — 2.00

948-949 PB L 82232 — "Brillant Alizarin Viridin F". n.d. In German. From 1,4-di-p-toluido -8-hydroxy - anthraquinone. — 2.00

950 PB L 82232 — "Alizarin Lichtgrau BBLW". n.d. In German. From 4,4'-diamino -1,1'-dianthraquinonylamine. — 2.00

951-953 PB L 82232 — "Indanthrenblau 5 G". n.d. In German. From 1-amino-2-bromo-4-hydroxy - anthraquinone (described). — 2.00

954-955 PB L 82232 — "Indanthrenbraun BR". n.d. In German. From 1,4-di-(1-anthraquinonylamino)- anthraquinone (described). — 2.00

Dyes (contd)

956-958 PB L 82232 "Indanthren Braun FFR", n.d. In German. 2.00
From 1-benzoylamino-5-amino-anthraquinone and 1-benzoylamino-4-chloro-anthraquinone.

959-960 PB L 82232 "Indanthrenbrillantviolett BBK", n.d. In German. 2.00
From 1-benzamido-5-p-methoxy-benzamido-4,8-dihydroxy-anthraquinone.

961-962 PB L 82232 "Indanthrenbrillantviolett RK", n.d. In German. 2.00
From 4,8-di-(p-methoxy benzamido)-1,5-dihydroxy-anthraquinone (described).

963 PB L 82232 "Indanthrenkorinth RK", n.d. In German. 2.00
From 1-amino-4-benzamido-anthraquinone and 2-chloroanthraquinone.

964 PB L 82232 "Indanthrengelb GK", n.d. In German. 2.00
From 1,5-dibenzamido-anthraquinone.

965-966 PB L 82232 "Indanthrengelb 3 GF", n.d. In German. 2.00
From 5,5'-dibenzamido-anthraquinone and oxalylchloride.

967-968 PB L 82232 "Indanthren Goldorange 3 G", n.d. In German. 2.00
From 5,5'-dibenzamido-1,1'-dianthraquinonylamine.

969-970 PB L 82232 "Indanthrengrau K", n.d. In German. 2.00
From 4,4'-dibenzamido-1,1'dianthrimide.

971-972 PB L 82232 "Indanthrengrün BB", n.d. In German. 2.00
From 4,4'-diamino -3,3'-dichloro-1,2'-2,1'-indanthrene.

973-974 PB L 82232 "Indanthren Oliv R", n.d. In German. 2.00
From 4,4'-diamino-1,1'-dianthrimid and benzoylchloride.

975-976 PB L 82232 "Indanthrenrot 5 GK", n.d. In German. 2.00
From 1,4-di-benzamido-anthraquinone (described).

977-981 PB L 82232 "Indanthrenrotbraun 5 RF", n.d. In German. 2.00
From 5-benzamido -8- methoxy-4'-benzamido-1,1'-dianthraquinonylamine, production described.

982-984 PB L 82232 "Indanthrenscharlach R", n.d. In German. 2.00
From p-anisidine and perylene tetracarboxylic acid anh.

985-986 PB L 82232 "Indanthren Gelb 5 GK", n.d. In German. 2.00
From 1-amino-anthraquinone and isophthaloylchloride.

987-988 PB L 82232 "Indanthren Oliv 3 G", n.d. In German. 2.00
From 1 (4-phenyl-benzamido)-anthraquinone (described).

989-990 PB L 82232 "Indanthrenorange 7 RK", n.d. In German. 2.00
From 1',1"-di-anthraquinonyl - 2,6-diamino-anthraquinone (described).

991-993 PB L 82232 "Algolbrillantgrün BK", n.d. In German. 2.00
From 9-chloro-2-bromo-naphthoindole-2(2',4'-methoxy naphthol) indigo (described).

994 PB L 82232 "Algolscharlach B", n.d. In German. 2.00
From perylene - 3,4,9,10 - tetracarboxy - di-p-chloroanilide.

995 PB L 82232 "Helioechtblau BL", Description not here but on frame 887.

996-997 PB L 82232 "Helioechtgelb 6GL", n.d. In German. 2.00
From 1-amino-anthraquinone, salicylic acid, and thionylchloride.

998-1001 PB L 82232 "Helioechtrosa RL", n.d. In German. 2.00
From 1-hydroxy-4-benzamido-anthraquinone (described).

1002-1006 PB L 82232 "Helioechtrubin 4 BL", "3BL", and "6 BL", n.d. In German. 2.00
From "Rotsehl" = 1,4-dihydroxy-anthraquinone.

1007 PB L 82232 "Helioechtrubin FF extra", n.d. In German. 2.00
From 1,4-dihydroxy-2-phenoxy-anthraquinone (described).

1008 PB L 82232 "Sudanblau G", 1938. In German. 2.00
1-Methyl-amino-4-p-toluido-anthraquinone.

1009-1010 PB L 82232 "Alizarin Cyanin Grün" fat soluble. n.d. In German. 2.00
1,4-Di-p-toluido - anthraquinone.

1011 PB L 82232 "Sudangrün BB", n.d. In German. 2.00
1,4-Di-p-toluido -8-hydroxy - anthraquinone.

1012-1013 PB L 82232 "Sudanviolett BR", n.d. In German. 2.00
Chiefly 1,8-and 1,5-ditoluido - anthraquinone (described).

1014-1015 PB L 82232 "Rauchorange G", n.d. In German. 2.00
1-Amino-anthraquinone (described).

1016 PB L 82232 "Chlorazinbraun base", 1946. In German. 2.00
From primuline-sulfonic acid, 2(4-amino phenyl)-benzthiazole, 1-naphthylamine-6-and-7-sulfonic acids and phenol.

1017 PB L 82232 "Diamantschwarz base" 1946. In German. 2.00
From o- and p- amino-salicylic acids and 1-naphthylamine.

1018 PB L 82232 "Dianilblau G" intermediate. In German. 2.00
Description not here but on frame 443.

1019 PB L 82232 "Kresoläthertiolett" intermediate. 1946. In German. 2.00
From p-sulfanilic acid and cresidine.

1020-1021 PB L 82232 "Sudangelb R", n.d. In German. 2.00
Amino azobenzene; production described.

1022-1023 PB L 82232 "Sudangelb RR", "Echtgranat GBC", n.d. In German. 2.00
Amino azo toluene; described.

1024-1026 PB L 82232 "Sudangelb BRN", n.d. In German. 2.00
o-Amino azo-toluene and amino azo-toluene (mixture).

1027 PB L 82232 "OH - Rot AZ", 1946. In German. 2.00
From o-tolidine, 1-naphthol -3,6-disulfonic acid, and phenol.

Dyes (contd)

1028 PB L 82232 — "OH - Rot B". 1946. In German. From benzidine, 2-naphthol -6,8-disulfonic acid and phenol. 2.00

1029 PB L 82232 — "OH - Rot 3 B". 1946. In German. From o-tolidine, two other constituents as preceding item. 2.00

1030-1032 PB L 82232 — "Parazol - GP-base. 1946. In German. 4-(4' amino benzamido)-phenyl-azo-salicylic acid; production described. 2.00

1033 PB L 82232 — "Phenolorange P". 1946. In German. From o-tolidine, 2-naphthylamine-3,6-disulfonic and 6-sulfonic acids and phenol. 2.00

1034 PB L 82232 — "Salylbase ". 1946. In German. From aniline and salicylic acid. 2.00

1035 PB L 82232 — "Benzidinorange". 1946. In German. From benzidine, 2-naphthylamine -3,6-disulfonic acid, and phenol. 2.00

1036 PB L 82232 — "Benzoechtchromrot base". 1946. In German. From 5-amino-2-hydroxybenzene-3-sulfo -1-carboxylic acid and 2-methoxy-m-toluidine. 2.00

1037 PB L 82232 — "Braunbase". 1946. In German. From 2-aminophenol -4-sulfonic acid and resorcinol. 2.00

1038 PB L 82232 — "Brillantgelb" In German. Not here but on f. 498.

1039-1040 PB L 82232 — "Chromgelb A extra". 1939. In German. Azosalicylic acid. 2.00

1041 PB L 82232 — "Sulfanilsäureviolett". 1946. In German. From p-sulfanilic acid and 1-naphthylamine. 2.00

1042-1043 PB L 82232 — "Sirius GC". 1946. In German. Bases "A" and "B", described. 2.00

1044-1046 PB L 82232 — "Siriusorange I". 1946. In German From 4'-nitro-4-aminostilbene -2,2'-disulfonic acid and phenol. 2.00

1047 PB L 82232 — "Siriuschwarz-base VE". 1946. In German. From p-amino-salicylic acid and 1-naphthylamine. 2.00

1048 PB L 82232 — "Supraminbordo B base". 1946. In German. From 4-nitro aniline -2-sulfoethyl anilide and gamma acid. 2.00

1049 PB L 82232 — "Thiogelb". 1946. In German. From 4,4'-diamino diphenyl sulfide-2,2'-disulfonic acid and phenol. 2.00

1050 PB L 82232 — "Sulfosäure rün". In German. Not here but on f. 767.

1051 PB L 82232 — "Walkgelb" crude. 1946. In German. From "Thiogelb", 1049 above. 2.00

1052-1057 PB L 82232 — Name listings of intermediates listed in index for these pages but to be found elsewhere in the reel. In German. 2.00

PB L 82233. I. G. FARBENINDUSTRIE A. G. dyes. (BIOS Microfilm Reel F. D. 2537/47 (S. O. 1548/46) (Sect C, reel three of three, Frames 1-379) 1938 -1946. 379 f. Price: Microfilm-$7.00 - Enlargement print-$40.00 Reports on

This BIOS microfilm reel, like the preceding one (PB 82232), consists of 258 descriptions of Leverkusen processes for dyes and dye intermediates. "Hollerith" numbers of the products have been added in pencil. An index lists all products with their serial and "Hollerith" numbers. Individual descriptions, as listed below, will be available as enlargements prints only; please give PB and frame numbers when ordering an individual item. These reports are in German.

Frames	Title	Price
1 PB L 82233	"Brillantwollscharlach PSR." 1946. In German. (From 2-naphthylamine and 1-naphthol-3,6-disulfonic acid).	$2.00
2 PB L 82233	"Guineaechtrot RR." 1946. In German. (From o-anisidine and 1-naphthol-3,6-disulfonic acid).	2.00
3 PB L 82233	"Brillantbordo S." 1946. In German. (From 1-naphthylamine and 1-naphthol-3,6-disulfonic acid).	2.00
4 PB L 82233	"Excelsiorlackponceau JN." 1946. In German. (From 2-toluidine and 2-naphthol-3,6-disulfonic acid).	2.00
5-6 PB L 82233	"Ponceau R" pure, "RR" pure, and "3R" pure. 1946. In German. (By purification of "Ponceau R," "RR," and "3R," their production is not described).	2.00
7 PB L 82233	"Viktoriaechtviolett B extra." 1946. In German. (From 4-nitroaniline-6-sulfonic acid and 2-methylamino-naphthalene).	2.00
8 PB L 82233	"Echtbraun 3 B." 1946. In German. (From 2-naphthylamine-6-sulfonic acid and 1-naphthol).	2.00
9 PB L 82233	"Brillantlanafuchsin BB." 1946. In German. (From 5-acetamido-o-toluidine and "Chromotropsäure C.")	2.00
10 PB L 82233	"Säureschwarz MF." 1946. In German. (From 4,6-dinitro-2-aminophenol and H-acid).	2.00
11 PB L 82233	"Azo fuchsin G." 1946. In German. (From p-sulfanilic acid and 1,8-dihydroxynaphthol-4-sulfonic acid).	2.00
12 PB L 82233	"Lanafuchsin SB." 1946. In German. (From 4-amino-acetanilide and 1-naphthol-8-chloro-3,6-disulfonic acid).	2.00
13 PB L 82233	"Periwollblau G-F." 1946. In German. (From G-nitro-2-aminophenol-4-sulfonic acid and 1-amino-8-naphthol-2,4-disulfonic acid).	2.00
14 PB L 82233	"Igenalbraun FT-F." 1946. In German. (From 4-aminobenzyl sulfonic acid and 2-methylamino-8-naphthol-6-sulfonic acid).	2.00
15 PB L 82233	"Igenalbraun FRB-F." 1946. In German. (From 2-anisidine and "Sulfäthyl-Ganimasäure," (formula given)).	2.00
16 PB L 82233	"Igenalbraun FR-F." 1946. In German.	2.00

(From 4-aminobenzyl sulfonic acid and gamma acid).

17 PB L 82233 — "Igenalbraun JREP." 1946. In German. 2.00
(From o-anisidine-5-sulfonic acid and phenyl-gamma acid).

18 PB L 82233 — "Selandruckbraun 3 R." 1946. In German. 2.00
(From 4,4'-diamino-2,2'-dichlorobiphenyl, 1,3-phenylenediamine-4,6-disulfonic acid, and gamma acid).

19 PB L 82233 — "Tuchrot O." 1946. In German. 2.00
(From 4-amino-3,2'-dimethylazobenzene, 2-naphthol-3,6-disulfonic acid, and 2-naphthol-6-sulfonic acid).

20 PB L 82233 — "Tuchrot B." 1946. In German. 2.00
(From first two constituents of preceding item and 1-naphthol-4-sulfonic acid).

21 PB L 82233 — "Tuchrot 3 G extra." 1946. In German. 2.00
(From 4-amino-3,2'-dimethylazobenzene and 2-naphthylamine-6- and -7- sulfonic acids).

22-23 PB L 82233 — "Amaranth B." 1946. In German. 2.00
(From 2-naphthylamine-6,8-disulfonic acid, o-toluidine-m-methane-sulfonic acid, and 2-naphthol-3,6-disulfonic acid).

24 PB L 82233 — "Wollrot B." 1946. In German. 2.00
(From "Amidoazobenzol," 4-amino-3,2'-dimethyl-azobenzene, 2-naphthol-3,6-disulfonic acid, and 2-naphthol-6-sulfonic acid).

25 PB L 82233 — "Ponceau 5 R." 1946. In German. 2.00
(From 4-aminoazobenzene and 2-naphthol-3,6,8-trisulfonic acid).

26-27 PB L 82233 — "Sulfonviolett R extra." 1946. In German. 2.00
(From 3-chloro-2-toluidine-5-sulfonic acid, 2-toluidine-m-methane sulfonic acid, and 1-phenylamino naphthalene-8-sulfonic acid).

28 PB L 82233 — "Carbonschwarz G." 1946. In German. 2.00
(From 2-naphthylamine-6,8-disulfonic acid, 1-naphthylamine, and 2-naphthol-3,6-disulfonic acid).

29 PB L 82233 — "Naphthylblauschwarz N." 1946. In German. 2.00
(From 1-naphthylamine-3,6-and 3,7-disulfonic acids, 1-naphthylamine, and 1-ethylamino-naphthalene).

30 PB L 82233 — "Acetonsäureblau." 1946. In German. 2.00
(From p-nitroaniline, acetone, and 1,8-diaminonaphthalene-3,6-disulfonic acid).

31 PB L 82233 — "Wolldunkelgrün AZ extra." 1946. In German. 2.00
(From p-nitroaniline, p-aminoazobenzene, and H-acid).

32 PB L 82233 — "Naphtholblauschwarz FG." 1946. In German. 2.00
(From o-chloroaniline, 1-naphthylamine, and H-acid).

33 PB L 82233 — "Naphthylaminblauschwarz 5 B." 1946. In German. 2.00
(Mixture of "Amidoschwarz 10 B" - see PB 82232, fr. 101- and "Bordo" dye from 1-naphthylamine and 2 naphthol-3,6-disulfonic acid).

34-35 PB L 82233 — "Blauschwarz NWLP." 1946. In German. 2.00
(From p-nitroaniline, aniline, 1-amino-8-naphthol-4,6-disulfonic acid, and H-acid).

36-37 PB L 82233 — "Säureschwarz LD." 1946. In German. 2.00
(From p-nitroaniline, aniline-4-sulfonic acid, aniline, H-acid, and 1-amino-8-naphthol-4,6-disulfonic acid).

38 PB L 82233 — "Sulfonsäureschwarz R." 1946. In German. 2.00
(From 2-amino-diphenylether, m-nitroaniline, and 1-amino-8-naphthol-4,6-disulfonic acid).

39 PB L 82233 — "Seidenschwarzgrün BS." 1946. In German. 2.00
(From "Amidoschwarzgrün B" - see PB 82232, fr. 104 - and 2,4-dinitro-1-chlorobenzene).

40 PB L 82233 — "Blauschwarz CDF." 1946. In German. 2.00
(From aniline, 1-naphthylamine, and 1-amino-8-naphthol-4,6-disulfonic acid).

41 PB L 82233 — "Walkscharlach B." 1946. In German. 2.00
(From 4,4'-diamino-2,2'-dimethyl-diphenylmethane and 1-naphthol-5-sulfonic acid).

42 PB L 82233 — "Brillantsulfonazurin R." 1946. In German. 2.00
(From 4,4'-diaminobiphenyl-2,2'-sulfone-5,5'-disulfonic acid and 2-ethylamino naphthalene).

43 PB L 82233 — "Säureanthracenrot 5 BL." 1946. In German. 2.00
(From 2,2'-dichloro-4,4'-diamino-biphenyl and 2-naphthol-3,6-disulfonic acid).

44 PB L 82233 — "Sulfonazurin." 1946. In German. 2.00
(From benzidine-2,2'-sulfone-5,5'-disulfonic acid (structure given) and phenyl-2-naphthylamine).

45 PB L 82233 — "Igenalbraun CM." 1946. In German. 2.00
(From "Dehydrothiotoluidinsulfosäure" and "Kupferbasis" (from 6-chloroaniline-3-sulfonic acid and resorcinol)).

46 PB L 82233 — "Resorcinbraun 7893." 1946. In German. 2.00
(From aniline-4-sulfonic acid, xylidine mixture, and resorcinol).

47 PB L 82233 — "Amidoechtbraun 3 R." 1946. In German. 2.00
(From m-aminobenzaldehyde and phenyl-gamma acid).

48 PB L 82233 — "Supramingelb G." 1946. In German. 2.00
(From 1 (5'-amino-2-methylbenzene-sulfoylamino)-naphthalene-5-sulfonic acid and 2-methylindol).

49 PB L 82233 — "Supravinorange R." 1946. In German. 2.00
(From aniline and chloroacetyl- - acid).

50 PB L 82233 — "Supranolbrillantrot 6 B." 1946. In German. 2.00

Dyes (contd)

(From "3-Amino-4-isopropyloxy-1-isooctylbenzol" (structure given) and "N-2'-chlor-1'-4'-dimethylbenzol-5'-sulfoyl-H-saure.")

51 PB L 82233 "Supranolbrillantrot FB." 1946. In German. 2.00
(From 4-amino-1-cyclohexylbenzene and 1(2',5'-dichlorobenzoylamino)-3-naphthol-4,6-disulfonic acid).

52 PB L 82233 "Salicinschwarz DE." 1946. In German. 2.00
(From "Siriusschwarzbase VE" and 1-naphthol-5-sulfonic acid).

53 PB L 82233 "Anthracenchromschwarz AP." 1946. In German. 2.00
(From 2-aminophenol-4-sulfonic acid and 1,7-dihydroxynaphthalene-3-sulfonic acid).

54 PB L 82233 "Anthracenchromschwarz 5 B." 1946. In German. 2.00
(From 2-amino-3-hydroxynaphthalene-6-sulfonic acid and 1-amino-8-hydroxy-naphthalene-4-sulfonic acid).

55 PB L 82233 "Anthracenchromschwarz P." 1946. In German. 2.00
(From 4-nitro-2-aminophenol and 2,3,8-trihydroxynaphthalene-6-sulfonic acid).

56 PB L 82233 "Anthracenchromschwarz RMD." 1946. In German. 2.00
(From 2-amino-3-hydroxynaphthalene-6-sulfonic acid and gamma acid).

57 PB L 82233 "Salicinschwarz EAG." 1946. In German. 2.00
(From 6-nitro-2-hydroxy-1-diazo-naphthalene-4-sulfonic acid and 2-naphthol).

58 PB L 82233 "Diamantblau R." 1946. In German. 2.00
(From 1-naphthylamine-7-sulfonic acid and 1-naphthol-5-sulfonic acid).

59 PB L 82233 "Alizaringelb R." 1946. In German. 2.00
(From p-nitroaniline and salicylic acid).

60 PB L 82233 "Alizaringelb 3 G." 1946. In German. 2.00
(From acetyl-p-phenylene-diamine and salicylic acid).

61 PB L 82233 "Palatinchromrot RX." 1946. In German. 2.00
(From benzidine, salicylic acid, and 1-naphthol-3,6-disulfonic acid).

62 PB L 82233 "Säureanthracenbraun V." 1946. In German. 2.00
(From p-phenylazoaniline and 1-naphthol-4-sulfonic acid).

63 PB L 82233 "Anthracylchromblau D724." 1946. In German. 2.00
(From 1-naphthylamine-4-sulfonic acid and 4-acetamidophenol).

64 PB L 82233 "Säureanthracenbraun R 27104F." In German. 2.00
(From 4,6-dinitro-2-aminophenol and 1,3-phenylenediamine-4-sulfonic acid).

65 PB L 82233 "Chromrotbraun 5RD." 1946. In German. 2.00
(From 4-amino-phenol-2,5-disulfonic acid and pyrogallol).

66 PB L 82233 "Foulardätzblau B." 1946. In German. 2.00
(From 5-amino-4-chloro-2-oxamido-anisole, 2-naphthol-6-sulfonic acid, and 1-naphthol-5-sulfonic acid).

67 PB L 82233 "Säureanthracenbraun TBL." 1946. In German. 2.00
(From 4-nitro-2-aminophenol-6-sulfonic acid and 3-hydroxydiphenylene-oxide).

68 PB L 82233 "Azoldruckrot R extra." 1946. In German. 2.00
(From 4-aminoazobenzene-3,4'-disulfonic acid and 2(N-methyl-N-(4'-hydroxy-3'-carboxybenzene)sulfamino)-5-hydroxynaphthalene-7-sulfonic acid).

69 PB L 82233 "Chromechtrot GD." 1946. In German. 2.00
(From 5(3'-amino-benzamide)-2-hydroxy-3-sulfo-benzoic acid and 1-acetamido-5-naphthol-4,6-disulfonic acid).

70 PB L 82233 "Benzoforrot 2 GF." 1946. In German. 2.00
(From 2-anisidine, "4" Amidobenzoly-3'-aminobenzoyl-γ-säure"(structure given), and resorcinol).

71 PB L 82233 "Brillantbenzoviolett 2 BH." 1946. In German. 2.00
(From 4,4'-diamino-diphenyl-3,3'-disulfonic acid and γ-acid-imide (formula given)).

72-73 PB L 82233 "Papierechtbordo B." 1946. In German. 2.00
(From aniline-2-sulfonic acid, 2,5-xylidine, and 2-amino-5-naphthol-1,7-disulfonic acid).

74 PB L 82233 "Triazolbordo B." 1946. In German. 2.00
(From benzidine, salicylic acid, γ-acid and 2-chloroaniline-4-sulfonic acid).

75 PB L 82233 "Triazolviolett BN." 1946. In German. 2.00
(From benzidine, 1-naphthol-3,6-disulfonic acid, and phenyl--acid).

76 PB L 82233 "Columbiaechtscharlach 5SB." 1946. In German. 2.00
(From 6-toluidine, "Imidazol-4-säure" (structure given), and 1-naphthol-4-sulfonic acid).

77 PB L 82233 "Benzoechtorange D." 1946. In German. 2.00
(From p-aminobenzoic acid, m-sulfanilic acid, aniline, and γ - acid urea (structure given)).

78-79 PB L 82233 "Siriusrot 6 B." 1946. In German. 2.00
(From 2,4-dichloroaniline-6-sulfonic acid, 3-toluidine-4-methane sulfonic acid, and γ-acid-urea).

80 PB L 82233 "Benzoechtchromrubin." 1946. In German. 2.00
(From 5(4'-aminobenzamido)-2-hydroxybenzoic acid, m-toluidine, and mixed urea of γ - acid and 4-acetamidoaniline).

81-82 PB L 82233 "Benzoformblau BBL." 1946. In German. 2.00
(From oxalyl-1,4-phenylenediamine, 1-naphthylamine-7-sulfonic acid, and resorcinol).

83-84 PB L 82233 "Siriusbraun RV." 1946. In German. 2.00
(From 2-naphthylamine-4,8-disulfonic acid, 1-naphthylamine,

5-methyl-o-anisidine, and 4-nitro-1,3-phenylenediamine).

85 PB L 82233 "Benzoviolett M." 1946. In German. (From 2-4-dimethylaniline-5-sulfonic acid, 5-methyl-o-anisidine, and J-acid). 2.00

85A-89 PB L 82233 "Siriuslichtgrün BTL." 1939-1946. In German. (From 4-nitro-4'-amino-stilbene-2,2'-disulfonic acid, 1-naphthylamine-4-sulfonic acid. 1-amino-2-ethoxy-naphthalene-6-sulfonic acid, and phenyl-J-acid). 2.00

90 PB L 82233 "Brillantbenzoechtgrün 3 GL." 1946. In German. (From 4(4'-aminobenzamido)-aniline, salicylic acid, 1-amino-2-ethoxy-naphthalene-6-sulfonic acid, and N-acetyl-H-acid). 2.00

91 PB L 82233 "Toluylenbraun G extra." 1946. In German. (From 2,6-toluene-diamine-4-sulfonic acid and 1,3-phenylene-diamine). 2.00

92 PB L 82233 "Benzogrün G." 1946. In German. (From o-tolidine, salicylic acid, 1-amino-8-hydroxy-naphthalene-4-sulfonic acid and 4-chloro-aniline-2-sulfonic acid). 2.00

93 PB L 82233 "Columbiagrün." 1946. In German. (From benzidine, salicylic acid, 1-amino-8-hydroxynaphthalene-4-sulfonic acid, and aniline-4-sulfonic acid). 2.00

94 PB L 82233 "Diaminbraun V." 1946. In German. (From benzidine, gamma acid, and 1,3-phenylene-diamine). 2.00

95 PB L 82233 "Heliotrop 2 B." 1946. In German. (From benzidine, 2-naphthol-8-sulfonic acid, and 1-naphthol-3, 8-disulfonic acid). 2.00

96 PB L 82233 "Naphtaminbraun 8 B." 1946. In German. (From benzidine, gamma acid, aniline-4-sulfonic acid and 2,4-toluenediamine). 2.00

97 PB L 82233 "Orange TA." 1946. In German. (From benzidine, phenol, 1-naphthylamine-4-sulfonic acid and 2-naphthylamine-6-sulfonic acid). 2.00

98 PB L 82233 "Oxydiaminviolett B." 1946. In German. (From benzidine, 1-naphthol-4-sulfonic acid, and gamma acid). 2.00

99 PB L 82233 "Oxaminblau BG." 1946. In German. (From o-tolidine, 1-amino-5-naphthol-7-sulfonic acid, and 1-amino-8-naphthol-4-sulfonic acid). 2.00

100 PB L 82233 "Oxaminmarron." 1946. In German. (From benzidine, salicylic acid, and 1-amino-5-naphthol-7-sulfonic acid). 2.00

101 PB L 82233 "Pyraminorange 3 G." 1946. In German. (From benzidine, 1,3-phenylenediamine-4,6-disulfonic acid, and 4-nitro-1,3-phenylenediamine). 2.00

102 PB L 82233 "Pyraminorange R." 1946. In German. (From 4,4'-diamino-biphenyl-3, 3'-disulfonic acid and 4-nitro-1,3-phenylenediamine). 2.00

103 PB L 82233 "Diaminbraun R." 1946. In German. (From benzidine, salicylic acid, 1-naphthylamine-6-sulfonic acid, and o-toluidine). 2.00

104 PB L 82233 "Dianilechtbraun B." 1946. In German. (From benzidine, salicylic acid, gamma acid, and m-phenylenediamine). 2.00

105 PB L 82233 "Oxydiaminbraun RN." 1946. In German. (From benzidine, salicylic acid, m-phenylenediamine, 1,5-naphthylene-diamine-3,7-disulfonic acid, and aniline-2,4-disulfonic acid). 2.00

106 PB L 82233 "Oxaminsäurebraun G." 1946. In German. (From primulinesulfonic acid, 2(4-aminophenyl)-benzthiazole, resorcinol, and aniline). 2.00

107 PB L 82233 "Toluylenorange R" for Soga Werah." 1946. In German. (From o-tolidine, 1,3-phenylene-diamine-4,6-disulfonic acid, and 2, 4-toluenediamine-5-sulfonic acid). 2.00

108 PB L 82233 "Diaminbraun BD." 1946. In German. (From benzidine, salicylic acid, and phenyl-gamma acid). 2.00

109 PB L 82233 "Chicago Blau RR." 1946. In German. (From tolidine, 2-naphthol-8-sulfonic acid, and 1-amino-8-naphthol-4-sulfonic acid). 2.00

110 PB L 82233 "Brillantazurin 5 G." 1946. In German. (From bianisidine and 1,8-dihydroxy naphthalene-4-sulfonic acid). 2.00

111 PB L 82233 "Naphtaminblau 3 R." 1946. In German. (From benzidine, H acid, 1-amino-8-naphthol-4,6-disulfonic acid, and 2-naphthol-6-sulfonic acid). 2.00

112 PB L 82233 "Cupraminbrillantblau RR." 1946. In German. (From bianisidine, "Chromotropsäure C," and phenyl-J-acid). 2.00

113 PB L 82233 "Benzoneublau 5 BF." 1946. In German. (From o-tolidine and "Chromotropsaure 4 G"). 2.00

114-115 PB L 82233 "Paradiaminblauschwarz 3 B extra." 1946. In German. (From benzidine, H-acid, aniline, and 1-naphthylamine-6-sulfonic acid). 2.00

116-117 PB L 82233 "Direkttiefschwarz 95 77." 1946. In German. (From benzidine, H-acid, aniline, and 4-chloro-1,3-phenylinediamine). 2.00

118-119 PB L 82233 "Siriuslichtscharlach GG." 1946. In German. (From 4,4'-dinitrostilbene-2,2'-disulfonic acid and "Anisidinsäure-violett;" the latter from p-anisidine-3-sulfonic acid and 5-methyl-o-anisidine). 2.00

120-121 PB L 82233 "Siriuslichtorange RRL." 1946. In German. (From 4,4'-dinitrostilbene-2,2'-disulfonic acid and "p-xylidinviolett;" 2.00

the latter from p-anisidine-3-sulfonic acid and 3,6-xylidine).

122-123
PB L 82233 "Siriuslichtorange GR." 1946. In German. 2.00
(From p-aminobenzoic acid, "Anilinmethansäure," and 4,4'-dinitrostilbene-2,2'-disulfonic acid).

124
PB L 82233 "Diaminorange GR." 1946. In German. 2.00
(From 4-nitrotoluene-2-sulfonic acid).

125
PB L 82233 "Diazobrillantschwarz B." 1946. In German. 2.00
(From bianisidine and 1-naphthylamine-6-and-7-sulfonic acids).

126
PB L 82233 "Diazoschwarz R extra." 1946. In German. 2.00
(From benzidine, H-acid, and 1-naphthylamine).

127-128
PB L 82233 "Diazomarineblau R." 1946. In German. 2.00
(From benzidine, γ-acid, 4-nitroaniline-2-sulfonic acid, and m-nitroaniline).

129
PB L 82233 Diazoreinblau 3 G." 1946. In German. 2.00
(From bianisidine, 1-acetamido-8-naphthol-4,6-disulfonic acid, and 5-acetamido-o-anisidine).

130
PB L 82233 "Paragranat G." 1946. In German. 2.00
(From p-phenylazo-aniline and γ-acid urea).

131
PB L 82233 "Diazanilrosa B." 1946. In German. 2.00
(From 4(4'-nitrobenzamido)-aniline-2-sulfonic acid and 2(4'-nitrobenzamido)-5-naphthol-7-sulfonic acid.

132
PB L 82233 "Diazolichtrot 8 BL." 1946. In German. 2.00
(From "4-Amidoazobenzol-4'-sulfosäure" and 2(m-aminobenzamido)-5-naphthol-7-sulfonic acid).

133
PB L 82233 "Diazobrillantscharlach 3 B extra." 1946. In German. 2.00
(From xylidine mixture, o-toluidine, and "Schroefelrotsäure" (structure given)).

134-135
PB L 82233 "Diazogrün 3 G." 1946. In German. 2.00
(From 4-acetamido-aniline-2-sulfonic acid, 1-amino-2-ethoxynaphthalene-6-sulfonic acid, 2(p-aminobenzamido)-5-naphthol-7-sulfonic acid, and 1-phenyl-3-methyl-5-pyrazolone).

136
PB L 82233 "Diazolichtgelb 2 G." 1939. In German. 2.00
(From "Patrolflavonsäure;" structure given).

137
PB L 82233 "Parabraun G." 1946. In German. 2.00
(From 3,3'-di(formamido) biphenyl urea, 1,3-phenylene-diamine-4-sulfonic acid, and m-phenylene-diamine).

138
PB L 82233 "Parabraun 3 G." 1946. In German. 2.00
(From o-tolidine, 1,3-phenylene-diamine-4-sulfonic acid, and phenol).

139
PB L 82233 "Paragelb R." 1946. In German. 2.00
(From 2-amino-4-formylamido-benzenesulfonic acid and cresidine).

140
PB L 82233 "Paragrün B." 1946. In German. 2.00
(From bianisidine, phenol, and 1-amino-8-naphthol-4-sulfonic acid).

141
PB L 82233 Paraoliv G. 1946. In German. 2.00
(From N-acetyl-p-phenylene-diamine, H-acid, and resorcinol).

142
PB L 82233 "Parascharlach G extra." 1946. In German. 2.00
(From N-4'-aminobenzoyl- γ-acid and γ-acid urea).

143
PB L 82233 "Sambesirot 8 B." 1946. In German. 2.00
(From o-anisidine and imidazol- γ-acid (structure given)).

144
PB L 82233 "Diazolichtgelb 3 GL." 1939. In German. 2.00
(From "Dipatrolparaminsäure;" formula given).

145
PB L 82233 "Diazobrillantgrün 6 G." 1946. In German. 2.00
(From 3-chloro-2-toluidine-5-sulfonic acid, 1-amino-2-ethoxy-naphthalene-6-sulfonic acid, and 4'-aminobenzoyl-H-acid).

146-147
PB L 82233 "Diazobrillantscharlach ROL extra." 1946. In German. 2.00
(From 4(4'-nitrobenzamido)-aniline, 1-phenyl-3-carboxy-5-pyrazolone, and 2(4'aminobenzamido)-5-naphthol-7-sulfonic acid).

148
PB L 82233 "Diazobordo 7 BN." 1946. In German. 2.00
(From 3-amino-formanilide and γ-acid-imide (formula given)).

149-150
PB L 82233 "Diazogoldgelb G extra." 1946. In German. 2.00
(From "Parazol-GP-base" (structure given), 1(3'-nitrophenyl)-5-pyrazolone-3-carboxylic acid, and 1 (3'(3"-nitrobenzamido)Phenyl)-5-pyrazolone-3-carboxylic acid (structure given)).

151
PB L 82233 "Diazobordo 7 BL." 1946. In German. 2.00
(From 2-naphthylamine-4,8-disulfonic acid, 3-toluidine, and 2-(3'-methyl-4'-amino-benzamido)-8-naphthol-7-sulfonic acid)).

152-153
PB L 82233 "Diazolichtorange 5 G." 1946. In German. 2.00
(From 2-naphthylamine-4,8-disulfonic acid, m-toluidine, and 1(3'-aminophenyl)-5-pyrazolone-3-carboxylic acid).

154
PB L 82233 "Diazobrillantscharlach 3 BL extra." 1946. In German. 2.00
(From 5(4'-amino-3'-methylbenzamido)-2-hydroxy-benzoic acid and N-4'-amino-3'-methylbenzoyl- γ-acid).

155
PB L 82233 "Benzoechtkupferblau F3GL." 1946. In German. 2.00
(From 5-amino-2-hydroxybenzoic acid, 1-amino-6-sulfo-2-naphthoxy acetic acid, and 4'-benzamido-phenyl- γ-acid).

156
PB L 82233 "Benzoechtkupferbordo BL." 1946. In German. 2.00
(From 6-nitro-2-aminophenol-4-sulfonic acid and bis(2'-hydroxy-6'-naphthoyl)-bianisidine).

157
PB L 82233 "Benzoechtkupferrubin RL." 1946. In German. 2.00
(From 6-chloro-2-aminophenol-4-sulfonic acid and the same second constituent as preceding item; structure given here).

Dyes (contd)

158 PB L 82233 "Benzoechtkupferviolett F 3 BL." 1946. In German. 2.00
(From 5-nitro-2-aminophenoxy-acetic acid and 2(4'-methoxyphenylamino)-5-hydroxynaphthalene-7-sulfonic acid).

159 PB L 82233 "Benzoechtkupferrot 2 GL." 1946. In German. 2.00
(From 4,4'-diaminodiphenyl-3,3'-dihydroxy acetic acid and 1-phenyl-3-methyl-5-imidopyrazol. Structure given).

160 PB L 82233 "Benzoechtkupferbraun TL." 1946. In German. 2.00
(From 4,4'-diaminodiphenyl-3,3'-dicarboxylic acid, 1-phenyl-3-methyl-5-pyrazolone, and 2,8-dihydroxynaphthalene-6-sulfo-3-carboxylic acid).

161 PB L 82233 "Benzoechtkupfermarineblau 3 RL." 1946. In German. 2.00
(From 4,4'-diaminodiphenyl-3,3'-dihydroxyacetic acid (structure given) and 1-chloro-2-amino-5-naphthol-7-sulfonic acid).

162 PB L 82233 "Benzoechtkupfermarineblau BL." 1946. In German. 2.00
(From 4,4'-diaminodiphenyl-3,3-dihydroxyacetic acid (structure given), benzoyl- γ -acid, and 2',4'-dimethoxyphenyl-γ-acid).

163 PB L 82233 "Benzoechtkupferbraun BRL." 1946. In German. 2.00
(From benzidine, salicylic acid, resorcinol, and 8-sulfo-3-amino-2-hydroxy-benzoic acid).

164 PB L 82233 "Chromsogarot 29851." 1946. In German. 2.00
(From 2-aminobenzoic acid, γ -acid, and salicylic acid).

165 PB L 82233 "Ergansoga Koening GG." 1946. In German. 2.00
(From 4,4'-diaminobenzyl-2,2'-disulfonic acid and salicylic acid).

166 PB L 82233 "Ergansoga Koening Mks." 1946. In German. 2.00
(From 4,4'-diaminodiphenylsulfide-2,2'-disulfonic acid and salicylic acid).

167 PB L 82233 "Ergansoga Morah Tolah 4 RG." 1946. In German. 2.00
(From "p-O-P-base" (structure given) and 1-naphthol-2-carboxylic acid).

168-169 PB L 82233 "Ergansogaorange R." 1946. In German. 2.00
(From p-nitroaniline, salicylic acid, and 5-amino-2-hydroxybenzoic acid).

170 PB L 82233 "Benzoformbraun R." 1946. In German. 2.00
(From 4,4'-diamino-diphenylurea, gamma acid, and resorcinol).

171 PB L 82233 "Benzolichteosin BL." 1946. In German. 2.00
(From 4,4'-diamino-diphenylurea-3,3'-disulfonic acid and 2-methylamino-naphthalene-7-sulfonic acid).

172 PB L 82233 "Benzoreingelb FF." 1946. In German. 2.00
(From 2(4'-aminophenyl)-benzothiazole-sulfo-6-carboxylic acid (structure given) and acetoacetic anilide).

173 PB L 82233 "Diaminviolettrot." 1946. In German. 2.00
(From 1,5-naphthylenediamine-3,7-disulfonic acid and 2-naphthylamine).

174 PB L 82233 "Pyramingelb RK." 1946. In German. 2.00
(From primulinesulfonic acid, 2(4-aminophenyl)benzthiazole, and 4-nitro-1, 3-phenylene-diamine).

175 PB L 82233 "Brika GGN." 1946. In German. 2.00
(From "Dehydrothio-4-toluidine" and 1-naphthol-3,8-disulfonic acid).

176 PB L 82233 "Siriuslichtrotviolett B." 1946. In German. 2.00
(From 5-amino-2-acetamido-1-methoxy-benzene-4-sulfonic acid and gamma acid).

177 PB L 82233 "Siriuslichtbraun BRLN." 1946. In German. 2.00
(From benzidine, salicylic acid, 3-methyl-2-hydroxybenzoic acid, and "Braunbase.")

178-179 PB L 82233 "Siriuslichtbraun 5 G." 1946. In German. 2.00
(From 2-aminonaphthalene-6,8-disulfonic acid, m-toluidine, and "Braunbasis.")

180 PB L 82233 "Siriuslichtgelb RRL." 1946. In German. 2.00
(From 3(4'-aminobenzamido)-5-sulfo-salicylic acid and m-toluidine).

181 PB L 82233 "Autazolchromschwarz BA." 1946. In German. 2.00
(From 1-amino-5-naphthol-7-sulfonic acid, 1-naphthylamine-7-sulfonic acid, and 2-amino-8-naphthol-6-sulfonic acid).

182 PB L 82233 "Autazolchrommarineblau" for "BRA." 1946. In German. 2.00
(From first two constituents of preceding item and 2-amino-5-naphthol-7-sulfonic acid).

183 PB L 82233 "Cellitechtgelb GGN." 1946. In German. 2.00
(From m-aminobenzoic acid and o-anisidine-p-methanesulfonic acid).

184 PB L 82233 "Cellitechtgelb R." 1946. In German. 2.00
(From 3-nitroaniline and methylbenzylanilinesulfonic acid).

185 PB L 82233 "Cellitechtorange C." 1946. In German. 2.00
(From picranic acid and phenol).

186 PB L 82233 "Cellitechtrubin B." 1946. In German. 2.00
(From 2,4-dinitroaniline and ethylbenzylaniline-3'-sulfonic acid).

187 PB L 82233 "Cellitechtviolett 4 R." 1946. In German. 2.00
(From 2,4-dinitroaniline and ethylbenzyl-3-toluidine-3'-sulfonic acid).

188 PB L 82233 Mixing formulas for seven "Rapidogen" dyes. 1946. In German. 2.00
("R-Korinth JB" and "R," "R-Olivbraun JG," "R-Gelb J3G," "R-Marineblau JB," "R-Schwarz J2G," and "R-Orange MG.") (See following item for intermediate for "R-Korinth R.")

189 PB L 82233 "Azokorinthsalz KR." 1946. In German. 2.00
(From 4-nitro-5-methyl-o-anisidine and methylamino acetic acid).

190 PB L 82233 "Brillantorange CNL." 1946. In German. 2.00
(Chiefly "Brillantorange CN," consisting of toluidine mixture and 2-naphthol-6-sulfonic acid).

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Dyes (contd)

191 PB L 82233 "Lanacylblau 2 B." 1946. In German. (From H-acid and 1-amino-5-hydroxynaphthalene). 2.00

192 PB L 82233 "Supramingelb 3 G." 1946. In German. (From 2-amino-4-sthylacetamido-1-methylbenzene and 1(2'-chloro-4'-sulfophenyl)-3-methyl-5-pyrazolone). 2.00

193 PB L 82233 "Foulard Ätzgrün BL." 1946. In German. (From 4-acetamido-1-aminobenzene-2-sulfonic acid, 1-amino-2-ethoxynaphthalene, and 1-acetamido-8-naphthol-4-sulfonic acid). 2.00

194 PB L 82233 "Diamantolic GL." 1946. In German. (From 4-nitro-2-aminophenol and 1-phenylamino-7-hydroxynaphthalene-3-sulfonic acid). 2.00

195-196 PB L 82233 "Halbwollblau 3 R." 1946. In German. (From bianisidine, "Chromotropsäure C", and γ-acid-imide). 2.00

197 PB L 82233 "Chrysamin R." 1946. In German. (From tolidine, benzidine, and salicylic acid). 2.00

198 PB L 82233 "Benzoblau 4 R." 1946. In German. (From benzidine, 2-naphthol-8-sulfonic acid, and 1-amino-8-naphthol-4-sulfonic acid). 2.00

199-200 PB L 82233 "Benzoechtchromblau 4G." 1946. In German. (From 5-amino-3-sulfo-2-hydroxybenzoic acid, 1-naphthylamine-6- and 7-sulfonic acids, and 2-phenylamino-5-naphthol-7-sulfonic acid). 2.00

201-206 PB L 82233 "Egalon" and "Kasara" pigments. 1946. In German. (Mixing formulae for twenty pigments). 2.00

207-208 PB L 82233 "Bukanol" pigments. 1946. In German. (Mixing formulae for seven pigments). 2.00

209 PB L 82233 "Bukanolbrillantgelb O." 1946. In German. (Ammonium salt of "Chrysophenin G.") 2.00

210 PB L 82233 "Bukanolbrillantbraun R." 1946. In German. (Ammonium salt of "Columbiabraun R"). 2.00

211-212 PB L 82233 "Echtgranat GBC base." 1946. In German. (From aminoazotoluene, production of which is described). 2.00

213 PB L 82233 "Echtgranat GC base." n. d. In German. (This product was discontinued; description not available). 2.00

214-216 PB L 82233 "Echtrot G L base." n. d. In German. (2-Nitro-p-toluidine). 2.00

217 PB L 82233 "Echtschwarz B-base." 1939. In German. (4,4'-Diamino-diphenylamine-sulfate). 2.00

218-220 PB L 82233 "Acetdiamidosäure." 1938. In German. (4-Amino-4'-acetamido-diphenylamine-2-sulfonic acid; process described). 2.00

221 PB L 82233 "Echtgranat B base." 1946. In German. (1-Naphthylamine; described). 2.00

222-223 PB L 82233 "Echtrotbase RBB." 1946. In German. (5-Aminobenzoyl-2,4-xylidine; described). 2.00

224-229 PB L 82233 "Echtviolett B base." n. d. In German. (4-Benzamido-5-methyl-o-anisidine; described). 2.00

230-234 PB L 82233 "Echtblau BB base." 1939. In German. (2-Benzamido-5-amino-p-diethoxybenzene; described). 2.00

235-239 PB L 82233 "Echtblau RR base." 1939. In German. (2-Benzamido-5-amino-p-dimethoxybenzene; described). 2.00

240-241 PB L 82233 "Echtkorinth LB base." n. d. In German. (4-Benzamido-6-chloro-m-anisidine; described). 2.00

242-246 PB L 82233 "Echtrot ITR-base." 1939. In German. (2-Amino-1-methoxybenzene-4-sulfodiethylamide; described). 2.00

247-249 PB L 82233 "Echtscharlach LG base." 1940-1945. In German. (2-Amino-1-methoxybenzene-4-benzylsulfonic; described). 2.00

250-251 PB L 82233 "Echtrotbase FR." 1946. In German. (2-Amino-4,4'-dichlorodiphenylether-hydrochloride). 2.00

252-253 PB L 82233 "Echtrotbase FG." 1946. In German. (2-Amino-4-chlorodiphenylether-hydrochloride). 2.00

254-255 PB L 82233 "Echtrot GTR." 1940. In German. (2-Amino-1-methoxybenzene-4-ethylsulfona). 2.00

256-257 PB L 82233 "Neuechtgran" and "Diphenblau." n. d. In German. (No information on these products available). 2.00

258 PB L 82233 "Astraviolett FN extra." n. d. In German. (From 1,3,3-trimethyl-5-methoxy-2-methylene-pseudoindole; formula given). 2.00

259 PB L 82233 "Rotviolett für Fanalfarben." n. d. In German. (From 1,3,3-trimethyl-5-methoxy-2-methylene-pseudoindole and p-diethylaminobenzaldehyde; formula given). 2.00

260 PB L 82233 "Basisches Gelb EFCM." n. d. In German. (From "Trimethylbasenaldehyd" and dyhydromethylketol; formula given). 2.00

261 PB L 82233 "Echtgrün CK." n. d. In German. (Discontinued; no information available). 2.00

262-263 PB L 82233 "Neptungrün SBX." n. d. In German. (From benzyl-o-toluidine and o-chlorobenzaldehyde; formula given). 2.00

264-265 PB L 82233 "Brillant Indocyanin 6 BS" and "Wollätzblau CK." n. d. In German. (These dyes were not produced; no information available). 2.00

266-267 PB L 82233 "Brillant Ätzblau G." n. d. In German. (From ethylbenzyl-m-toluidine-sulfonic acid, benzaldehyde, pyridine 2.00

and o-aminodiphenylamine.(Structural formula given)).

268-271 PB L 82233 — "Brillant Wollblau FFRL extra." n. d. In German. 2.00
(From "Äthylchlorgrün" and p-phenetidine; "Äthylchlorgrün" from ethylphenyltaurine (described) and p-chlorobenzaldehyde. Formula given).

272 PB L 82233 — "Saureviolett RRL." n. d. In German. 2.00
(This dye was never produced; no information available).

273 PB L 82233 — "Saureviolett BWN." n. d. In German. 2.00
(From tetramethyldiamino benshydrol and o-sulfophenyltaurine; formula given).

274 PB L 82233 — "Indulin B." n. d. In German. 2.00
(From "Indulinbase EZ" (not further explained)).

275-277 PB L 82233 — "Chromgrün GD extra." n. d. In German. 2.00
(From hydrol and o-toluenesulfonic acid; formula given).

278-279 PB L 82233 — "Chromoxanazurol BD" and Chromoxanbrillantviolett SR." n. d. In German. 2.00
(These products were discontinued; no information available).

280 PB L 82233 — "Metachromviolett B." n. d. In German. 2.00
(From hydrol and o-cresotic acid. Structure given).

281 PB L 82233 — "Chromoxanbrillantviolett BE." n. d. In German. 2.00
(From 2-chloro-p-diethylaminobenzaldehyde and o-cresotic acid. Structure given).

282 PB L 82233 — "Chromoxanbrillantviolett BR." n. d. In German. 2.00
(From phenylbutyltaurine and "p-Aldehydokresotinsäure." Structure given).

283 PB L 82233 — "Gallo" dyes. n. d. In German. 2.00
(These dyes were discontinued; no information available).

284 PB L 82233 — "Eukanolbrillantblau O." n. d. In German. 2.00
(Ammonium salt of "Brillant Indocyanin 6 B" (see PB 82232, fr. 758-759)).

285 PB L 82233 — "Cellitonechtgelb 3 G-F." n. d. In German. 2.00
(From ethoxyphenylaldehyde and cyanoacetic acid ethyl ester. Structure given).

286 PB L 82233 — "Astrazongelb 3 G." n. d. In German. 2.00
(From 1,3,3-trimethyl-2-methyleneindoline-w-aldehyde and aminoresorcinol-dimethyl ether. Structure given).

287 PB L 82233 — "Astrazongelb 5 G." n. d. In German. 2.00
(From first compound as preceding item and 6-amino-2-methyl-benzthiazole. Structure given).

288 PB L 82233 — "Astrazonorange G." n. d. In German. 2.00
(From same first compound and 2-methylindole. Structure given).

289 PB L 82233 — "Astrazonorange R." n. d. In German. 2.00
(From same compound and 2-phenylindole-3-aldehyde. Structure given).

290 PB L 82233 — "Astrazonrot 6 B." n. d. In German. 2.00
(From same compound and 4-(chlorethylethylamino)-2-methyl-benzaldehyde. Structure given).

291 PB L 82233 — "Astrazonrosa FG." n. d. In German. 2.00
(From same compound and 4-(chlorethyl-methylamino)-benzaldehyde. Structure given).

292-293 PB L 82233 — "Astrazonblau G" and "B." n. d. In German. 2.00
(Only structures are given. The dyes are stated to be identical with "Rhodulinblau 6 G" and "5B," respectively).

294 PB L 82233 — "Nigrosinbase SR." n. d. In German. 2.00
(Not produced in Leverkusen. No information available).

295 PB L 82233 — "Viktoriagrünbase" and "Diamantgrün GEX." 1945. In German. 2.00
(These products are stated to be identical with "Malachitgrün" base and "Brillantgrün," respectively. Processes not described here).

296 PB L 82233 — "Helicomarin GGL paste." n. d. In German. 2.00
(The chemical process, not described here, is stated to be identical with the one for "Helicomarine RL" powder (see PB 82232, f. 847)).

297-298 PB L 82233 — "Alizarin Rubinol 3 G." n. d. In German. 2.00
(From 4-anilino-1,9-N methylanthrapyridone. For intermediates see PB 82232, frames 870-874).

299-300 PB L 82233 — "Alizarin Rubinol 5 G." By Bähr. n. d. In German. 2.00
(From m-chloraniline and 4-bromo-1-N-methyl-anthrapyridone).

301 PB L 82233 — "Alizarin Saphirol WS." n. d. In German. 2.00
(From 1,8-dihydroxy-anthraquinone).

302-303 PB L 82233 — "Alizarin Uranol R." n. d. In German. 2.00
(From 1,4-diamino-anthraquinone and epichloro-hydrin).

304-305 PB L 82233 — "Alizarin-Saphirol ASR." n. d. In German. 2.00
(From 1-amino-4-bromo-anthraquinone-2-sodium sulfonate (see PB 82232, f. 849) and m-amino-benzonitrile).

306-314 PB L 82233 — "Alizarin Brillant Grün B extra." n. d. In German. 2.00
(Mixture of "α-" and "β-Brillantgrün." Intermediates for the latter products are 1-hexahydro anilino-anthraquinone-6- and -7-sodium sulfonates; the processes are described completely).

315-317 PB L 82233 — "Alizarin Cyaningrün 3 GW." n. d. In German. 2.00
(From 1,4-ditoluido-6-chloro-anthraquinone).

318-319 PB L 82233 — "Alizarin Direktviolett BL." n. d. In German. 2.00
(From m-amino benzene sulfomethyl anilide and 1-amino-2-methyl-4-bromo-anthraquinone).

320 PB L 82233 — "Alizarin Bordo." n. d. In German. 2.00
(From 1,2-dihydroxy anthraquinone).

321-322 PB L 82233 — "Azinbordo" and "Alizarincyclamin R." n. d. In German. 2.00

Dyes (contd)

(These products are chemically identical: 1,2,4,5,6,8-hexahydroxy-anthraquinone).

323-325 PB L 82233 — "Alizarin Viridin DG." n. d. In German. (Mixture of "Alizarin Viridin FF" and "Alizarin Blauschwarz B;" see PB 82232, frames 919 and 943, for these products). 2.00

326-327 PB L 82233 — "Indanthren Blau RK." By Bähr. n. d. In German. (From 1-methylamino-2-bromo-anthraquinone and 1-amino-2-bromo-anthraquinone). 2.00

328-329 PB L 82233 — "Indanthren Rot BK." By Bähr. n. d. In German. (From 1,4-diamino-anthraquinone and m-methoxy-benzoic acid chloride). 2.00

330 PB L 82233 — "Indanthren Braun 3GT." n. d. In German. (From trichloro-acridone and 1-amino-5-benzamidoanthraquinone). 2.00

331 PB L 82233 — "Indanthren Grau BG." n. d. In German. (From "Dibromanthanthron" and 1-benzamido-4-amino-anthraquinone). 2.00

332 PB L 82233 — "Indanthren Rotbraun GR." n. d. In German. (From 1-chloro-4-benzamido-anthraquinone and 1,5-diamino-anthraquinone). 2.00

333-337 PB L 82233 — "Indanthren Grün 4 G." n. d. In German. (From 2-phenyl-4-chloro-6,7-phthaloyl-quinazoline, p-toluene sulfonic acid and 5-chloro-4-amino-anthraquinone-2,1(N)-1',2'(N)-benzeneacridone. Production of intermediates described). 2.00

338-339 PB L 82233 — "Indanthren Orange GG." n. d. In German. (From 1-amino-4-and-5-benzamido-anthraquinone and isophthaloyl-chloride). 2.00

340-345 PB L 82233 — "Indanthren Brillant Rosa BL Suprafix." By Bähr. 1945. In German. (Preliminary process, starting with the production of anthraquinone-1-sulfo-2-carboxylic acid). 2.00

346-347 PB L 82233 — "Alizarin Irisol" fat soluble. n. d. In German. (1-p-toluido-4-hydroxy-anthraquinone. For its production see PB 82232, f. 865). 2.00

348-349 PB L 82233 — "Blau 12263." n. d. In German. (1-amino-2-methyl-4-p-toluido anthraquinone, for which see PB 82232, f. 893). 2.00

350-351 PB L 82233 — "Sudanviolett G." n. d. In German. (1,4-diamino-5-nitro-anthraquinone; see PB 82232). 2.00

352-353 PB L 82233 — "Sudanviolett R." n. d. In German. ("Kresolamin" =1,4-diamino-anthraquinone). 2.00

354-357 PB L 82233 — "Heliocohtrubin 2 BL" and "RL." n. d. In German. (From 1,2,4-trihydroxy-anthraquinone). 2.00

358-359 PB L 82233 — "Rauchblau R." n. d. In German. 2.00

(From 1-amino-2-bromo-4-p-toluido-anthraquinone; see PB 82232, f. 867).

360-361 PB L 82233 — "Sudanblau GN." n. d. In German. (1-Methyl amino-4-p-toluido-anthraquinone; see PB 82232, f. 851). 2.00

362-363 PB L 82233 — "Rauchbraun G." n. d. In German. (1,2,4-trichydroxy-anthraquinone; see frame 357 above). 2.00

364-365 PB L 82233 — "Rauchbordo BN." n. d. In German. (1-Amino-4-hydroxy-anthraquinone; see PB 82232, frames 1000-1001). 2.00

366-367 PB L 82233 — "Rauchviolett RN." n. d. In German. (From 1,5-and 1,8-di-m-toluido-anthraquinone; see PB 82232, f. 1013). 2.00

368 PB L 82233 — "Cellitazol SR." n. d. In German. (1-naphthylamine; production described). 2.00

369-372 PB L 82233 — "Ursolgrundierblau BL." n. d. In German. (From 1,1'-dihydroxy-4,4'-dimethoxy-2,2'-binaphthyl and 4-methoxy-1-naphthol; processes for intermediates are described). 2.00

373-374 PB L 82233 — "Sudangelb R." n. d. In German. (4-Amino-azobenzene; described). 2.00

375-376 PB L 82233 — "Sudangelb RR." n. d. In German. (Aminoazotoluene; described). 2.00

377-379 PB L 82233 — "Sudangelb RRN." n. d. In German. (o-Aminoazotoluene and some amino-azotoluene mixture; described). 2.00

PB L 86256. KENNEDY, S. J. Report of the committee for the evaluation of dyestuffs and chemicals obtained in Germany. (QM Textile Series Rept 44) Sep 1947. 478 p. Price: Microfilm-$7.00 - Photostat-$48.00

This report contains various series reports of dyestuff evaluations made by leading dyestuff companies in this country of the samples of German dyestuffs sent back from Germany by the technical investigators sent to Germany by the Office of the Quartermaster General to study the developments and research in the field of German dyestuffs during the war. This report is made available for use primarily by concerns cooperating with the Quartermaster Corps and other Government agencies in the improvement of items procured from industry.

Agricultural Chemicals

PB L 86446. CLARK, HERBERT C. Insect repellants. Bimonthly progress report No. 11. (OSRD Insect Control Committee Rept 88) Jun 1945. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00

This progress report consists of the following six individual reports dealing with insect repellents: (1) Studies on chiggers or red bugs (Acarina: Trombiculinae). By Charles D. Michener; (2) Acaricides as tick repellents. By Charles D. Michener; (3) Field tests of repellents against sandflies (Culicoides). By Harold Trapido; (4) Control of sandflies (Culicoides) with DDT residual spray. By Harold Trapido; (5) Experiments on the effectiveness of DDT residual sprays on painted and unpainted wood surfaces. By Harold Trapido; (6) Residual house-spraying with DDT in kerosene. Author not given. Contract OEMcmr-29.

PB L 74909. I.G. FARBENINDUSTRIE A.G. Reports on agricultural chemicals. (FIAT Microfilm Reel R 57, Frames 4970-5418) 1928-1938 449 f. Price: Microfilm-$5.25 - Enlargement Print-$45.00
This FIAT microfilm reel contains reports on testing of synthetic fertilizers, carried out in the years 1927-1937 at the agricultural experimental station of I.G. Farben A.G., Ludwigshafen. Individual reports, listed below, will be available as enlargement prints. Please give PB and frame numbers when ordering an individual item. These reports are in German.

Frames	Title	Price
4970-4974 PB L 74909	Vegetation experiments with "Acota." By Pfaff. 1938. In German.	$1.50
4975-4990 PB L 74909	Determination of tryptophan. By Roth. 1938. In German.	2.00
4991-5004 PB L 74909	Determination of vitamin B1, important for the quality of agricultural products. By Roth. 1938. In German.	1.50
5005-5015 PB L 74909	Lysimeter experiments with various nitrogenous fertilizers. By Pfaff. 1938. In German.	1.50
5016-5023 PB L 74909	Simultaneous chemical determination of vitamin B1 and cocarboxylase. By Roth. 1938. In German.	1.50
5024-5032 PB L 74909	Influence of the nitrogen content of barley grains on development and vitamin content of the young plant. By Pfuetzer and Pfaff. 1938. In German.	1.50
5033-5041 PB L 74909	Vegetation experiments with calcium and magnesium phosphates and superphosphate-slag mixtures. By Pfaff and Roemer. 1938. In German.	1.50
5042-5051 PB L 74909	Hot house experiments with sugar cane, 1927-1932. By Rackmann. 1938. In German.	1.50
5052-5061 PB L 74909	Hot house experiments with cotton, 1927-1934. By Rackmann. 1938. In German.	1.50
5062-5070 PB L 74909	Hot house experiments with bananas, 1927-1934. By Rackmann. 1938. In German.	1.50
5071-5089 PB L 74909	Vegetation experiments with lime urea and other fertilizers containing lime. By Pfaff. 1937. In German.	2.00
5090-5113 PB L 74909	Vegetation experiments with various nitrogen-calcium phosphates, 1937. By Pfaff. 1937. In German.	2.50
5114-5122 PB L 74909	Experiments for determining the total nitrogen in small quantities of agricultural products. By Roth. 1937. In German.	1.50
5123-5131 PB L 74909	The effect of different amounts of water and nitrogen on the formation of protein in four types of barley. By Pfaff. 1937. In German.	1.50
5132-5148 PB L 74909	Vegetation experiments with slags, 1936. By Pfaff. 1937. In German.	2.00
5149-5165 PB L 74909	Experiments on the effect of magnesium on the quality of some agricultural products. By Pfaff. 1937. In German.	2.00
5166-5172 PB L 74909	Boron absorption and mildew prevention in barley. By Pfaff. 1937. In German.	1.50
5173-5184 PB L 74909	Water percolation in lysimeters charged with intermediate crops. By Pfaff. 1937. In German.	1.50
5185-5204 PB L 74909	The relationship between the absorption of minerals by plants and the vitamin content of the latter. By Pfutzer and Pfaff. 1937. In German.	2.00
5205-5215 PB L 74909	Vegetation experiments with calcium and sodium nitrates in beet cultivation, 1936. By Pfaff. 1937. In German.	1.50
5216-5221 PB L 74909	After effects of humus fertilizers. By Pfaff. 1937. In German.	1.50
5222-5234 PB L 74909	Control of mildew in barley by means of boron and other agents. By Pfaff. 1937. In German.	1.50
5235-5262 PB L 74909	Vegetation experiments with various phosphates, chiefly nitrogen calcium phosphates. By Pfaff. 1936. In German.	3.00
5263-5278 PB L 74909	Vegetation experiments with various nitrogenous and carbonaceous fertilizers. By Pfaff. 1936. In German.	2.00
5279-5301 PB L 74909	Experiments on acid soils, 1927-1928. By Rackmann. 1936. In German.	2.50
5302-5311 PB L 74909	Increased doses of calcium on acid soils for barley, 1928. By Rackmann. 1936. In German.	1.50
5312-5322 PB L 74909	Experiments with various potassium salts, 1935. By Rackmann. 1936. In German.	1.50
5323-5332 PB L 74909	Experiments with straw compost for late turnips, 1929. By Rackmann. 1936. In German.	1.50
5333-5340 PB L 74909	Experiments with oiled products (as fertilizers) for oats, 1929. By Rackmann. 1936. In German.	1.50
5341-5348 PB L 74909	Experiments with "Nitrophoska" as a top dressing for oats, 1935. By Rackmann. 1936. In German.	1.50
5349-5357 PB L 74909	Experiments with organic compounds (as fertilizers) for oats. By Rackmann. 1936. In German.	1.50
5358-5371 PB L 74909	Experiments with various phosphates, 1935. By Rackmann. 1936. In German.	1.50
5372-5406 PB L 74909	Variation in oat harvests, 1935. By Rackmann. 1936. In German.	3.50
5407-5418 PB L 74909	Experiments with calcium nitrate-phosphate and "Nitrophoska" containing lime. By Rackmann. 1936. In German.	1.50

PB L 74909-S. I.G. FARBENINDUSTRIE A.G. Reports on agricultural chemicals. (FIAT Microfilm Reel R 57, Frames 4970-5418, abstract cards) 1928-1938. 57 p. Price: Microfilm-$2.00 - Photostat-$4.00
These are abstracts of the items on microfilm reel R 57 (PB 74909) described above. They were prepared by FIAT abstracters in Germany.

Chemical Engineering and Equipment

*PB L 85600. CAUSER, H. and FRITH, J. S. Manufacture of white lead. (BIOS Final Rept 1521, Item 22) May 1947. 15 p. Price: Microfilm-$1.25 - Photostat-$2.00
The report is divided into two sections: (A) process as applied by Vereinigte Farbwerke A. G., Duesseldorf, and (B) as applied by Hoelemann & Wolff, Osterode.

Chemical Engineering and Equipment (contd)

PB L 13090. I. G. FARBENINDUSTRIE A. G. Exchange of technical experiences of the Intermediate Products Commission (ZETKO), 1935. (FIAT Microfilm Reel C 44, Frames 1-908) Dec 1945. 923 f. Price: Microfilm-$6.00 - Enlargement Print-$92.50

Individual items on this reel are listed below. They will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

PB Numbers Frames	Title	Price
L 64473 Frames 1-2	Collective reports of the Intermediate Products Commission. Exchange of technical experience 1935. In German.	$1.00
L 86325 Frames 3-4a	The technical means and possibilities of continuous prdouction in the Intermediates field. In German.	2.00
L 64474 Frames 5-17	Innovations of equipment in the various I.G. plants. In German.	1.00
L 64475 Frames 18-31	Single drives or group drive? In German.	1.00
L 64476 Frames 32-43	Progress in the field of stirring. In German.	1.00
L 64477 Frames 44-54	Improvements in fittings. In German.	1.00
L 64478 Frames 55-63	Inlet and outlet devices. In German.	1.00
L 86326 Frames 64-64a	Table of reports listed here under 1a-15. In German.	2.00
L 64479 Frames 65-74	Gas heating. In German.	1.00
L 64480 Frames 75-88	Indirect heating and cooling. In German.	1.00
L 64481 Frames 89-102	Electrical heating. In German.	1.00
L 64482 Frames 103-107	New conveyance and transportation arrangements. In German.	1.00
L 64483 Frames 108-125	Improvements in the field of filtration, pressing and centrifuging. In German.	2.00
L 64484 Frames 126-137	Cylindrical dryer. In German.	1.00
L 64485 Frames 138-154	Other drying devices. In German.	1.00
L 64486 Frames 155-164	Modern evaporating equipment. In German.	1.00
L 86327 Frames 165-166	Table of reports, listed here under 1a-15. In German.	2.00
L 64487 Frames 167-178	Improvements in the field of grinding. In German.	1.00
L 64488 Frames 179-194	Distillation colums. In German.	2.00
L 63850 Frames 195-201	Special questions on distillation. In German.	1.00
L 57703 Frames 202-204	Large scale distillation plants. In German.	1.00
L 64489 Frames 205-225	Latest state of vacuum technique. In German.	2.00
L 64490 Frames 226-241	Non-metalic protective agent for material. In German.	2.00
L 64491 Frames 242-256	Use of new metal materials and protective agents of metal. In German.	1.00
L 64492 Frames 257-267	Safety devices. In German.	1.00
L 86328 Frames 267A	Reports from Bitterfeld. With detailed drawings of the apparatus described. (Title page) In German.	2.00
L 64493 Frames 268-270	"Mubilosa" nozzle. In German.	1.00
L 64494 Frames 271-272	Plate stirrer. In German.	1.00
L 64495 Frames 273-274	Double stopcock for armatures. In German.	1.00
L 64496 Frames 275-276	"Klinger" valves. In German.	1.00
L 64497 Frames 277-278	"Berolina"-Stoneware pumps. In German.	1.00
L 64498 Frames 279-281	"Redler" conveyer. (Universal conveyer). In German.	1.00
L 64499 Frames 282-283	Self-priming pumps. In German.	1.00
L 64500 Frames 284-291	Filter press for the separation of ortho-dichlorobenzene and para-dichlorobenze. In German.	1.00
L 64501 Frame 292	"Buettner" turbo-dryer. In German.	1.00
L 64502 Frames 293-299	"Vinoflex" lacquer. In German.	1.00
L 64503 Frames 300-301	Electrolytic oxidation. In German.	1.00
L 64504 Frames 302-303	"Deuton" stopcocks. In German.	1.00
L 86329 Frame 304	List of reports from Höchst, with detailed drawings of the apparatus described. In German.	2.00
L 86330 Frames 305-306	Dimethyl sulfate, according to a new process. In German.	2.00
L 64505 Frames 307-314	Experience with the sublimation apparatus for camphor. In German.	1.00
L 64506 Frames 315-319	Two new chlorination processes. In German.	1.00

L 64507 Frames 320-334 — Progress in the design of apparatus by installation of gyratory machines. Experience in the building and maintenance of the single drive at Höchst in comparison to drive with pulley-shafts. In German. 1.00

L 64508 Frames 335-339 — The technical importance of high-speed stirrers. In German. 1.00

L 64509 Frames 340-349 — Separatory funnels. In German. 1.00

L 64510 Frames 350-351 — Swinging chute for the naphthol centrifuge. In German. 1.00

L 64511 Frames 352-353 — Centrifugal pumps, for direct loading of filter presses. In German. 1.00

L 64512 Frames 354-355 — Hydraulic press for the crushing of caustic soda in drums. In German. 1.00

L 64513 Frames 356-360 — "Leistritz" pump for pastes (design, arrangement and performance). In German. 1.00

L 86331 Frame 361 — List of reports numbered in this index 11-19. In German. 2.00

L 64514 Frames 362-371 — Results of experiments on the heat exchange in apparatus with viscuous liquids. In German. 1.00

L 64515 Frames 372-383 — Removal of water from azeotropic mixtures, by extracting liquids. In German. 1.00

L 64516 Frames 384-398 — Generation of a vacuum in chemical industry. In German. 1.00

L 64517 Frames 399-401 — Developmental work on enamel apparatus. In German. 1.00

L 64518 Frames 402-412 — Work in the field of acid building-material. (acid concrete, acid cement, "[illegible]", "asplittkitt A"). In German. 1.00

L 64519 Frames 413-418 — Experience in 1931-1935, with vessels, pipings and tubular condensers. In German. 1.00

L 64520 Frames 419-430 — Apparatus for continuous analysis of gases in the Höchst methyl plant. In German. 1.00

L 64521 Frames 431-437 — Measurement of moisture. In German. 1.00

L 64522 Frames 438-442 — Experience with a "Rubiloss" dryer. In German. 1.00

L 86333 Frame 443 — Reports from Leverkusen with detailed drawings of the apparatus described. In German. 2.00 (This frame is illegible).

L 64523 Frames 444-453 — High-pressure apparatus for the preparation of mercaptothiazole. In German. 1.00

L 86334 Frame 454 — Double-walled apparatus for sublimation. In German. 2.00

L 64524 Frame 455 — Salicylic acid autoclaves with "Ganka" tubes in place of "Frederking" apparatus. In German. 1.00

L 64525 Frames 456-457 — Concrete covers for vats. In German. 1.00

L 64526 Frames 458-465 — Apparatus for preparation of p-nitrophenol. In German. 1.00

L 64527 Frame 466 — Vat flange. In German. 1.00

L 64528 Frames 467-468 — Guaiacol apparatus. In German. 1.00

L 64529 Frames 469-470 — Bake fusion kettle for asurol. In German. 1.00

L 64530 Frame 471 — Agitator drive with spur level gear and two speeds. In German. 1.00

L 64531 Frame 472 — Group greasing of drives. In German. 1.00

L 64532 Frame 473 — Helical spring coupling. In German. 1.00

L 64533 Frame 474 — Beveled wheels for agitator drives, made from "Ferrosell." In German. 1.00

L 64534 Frames 475-477 — Retractable stirring appliances. In German. 1.00

L 64535 Frame 478 — Stirrer and resistances inside the bake fusion pot. In German. 1.00

L 64536 Frame 479 — "Klinger" - stopcock. In German. 1.00

L 64537 Frame 480 — "Gestra" - condensation pot. Stopcocks with device for loosening the cock plug. In German. 1.00

L 64538 Frame 481 — Rubber-lined valves, rubber-lined stopcocks, "Klinger" valves. Valves with seat slanting. In German. 1.00

L 64539 Frame 482 — Easy-flow valves. In German. 1.00

L 64540 Frames 483-485 — Stopcocks with lubrication arrangement for the plug. In German. 1.00

L 64541 Frames 485 -485B — Safety pot with ball-shaped stopper. In German. 1.00

L 86335 Frame 486 — This frame is illegible. 1.00

L 64542 Frame 487 — Safety insertion disc. In German. 1.00

L 64543 Frames 488-489 — Emptying-device for powdery materials. (Bake fusion pot). In German. 1.00

L 64545 Frames 490-491 — Method of fixing the resistance pieces and stirring blades in salicylic acid autoclaves. In German. 1.00

L 64544 Frames 492-493 — Method of fixing the rubber-lined stirring blades in rubber-lined stirrers. In German. 1.00

L 86336 Frame 494 — Device for the removal of centrifuged materials. In German. (This frame is illegible). 2.00

L 64546 Frames 495-495B — Method of convering salicylic acid. In German. 1.00

L 64547 Frame 496 — Centrifugal-pumps for the feeding of filter-presses. In German. 1.00

L 64548 Frame 497 — High-pressure cog-wheel pump by Hillebrand & Kracht. In German. 1.00

L 64549 Frames 498-499 — The preparation of oxalyl chloride. Low cooling with ammonia to-20°C. at the most. In German. 1.00

L 64550 Frames 500-503 — Description of a electrically heated baking roller. In German. 1.00

L 64551 Frames 504-510 — Heating with boiling fuel oil. In German. 1.00

L 64552 Frame 511C — "Bayer" water heater. In German. (Frame 511 is missing) 1.00

L 64553 Frame 512 — Compression- or vacuum refrigeration? In German. 1.00

L 64554 Frame 513 — Closing device for oil baths. In German. 1.00

L 64555 Frames 514-518 — Heat transfer by heating baths. In German. 1.00

L 64556 Frame 519 — Rubber-lined cooling coil. In German. 1.00

L 64557 Frames 520-523 — Gas burner. In German. 1.00

L 64558 Frames 524-526 — Pressed plates and frames. In German. 1.00

L 64559 Frames 527-528 — Removal of flying dust. In German. 1.00

L 64560 Frames 529-530 — "Schafer" high-speed centrifuge. In German. 1.00

L 64561 Frames 531-533 — "Imperial" - rotary filter for "Vulkacit DM." In German. 1.00

L 64562 Frame 534 — Protecting the floor underneath presses by rubber cloth. In German. 1.00

L 64563 Frame 535 — Dynamic balancing of centrifuges. In German. 1.00

L 64564 Frames 536-538 — "Imperial" rotary filter for H acid. In German. 1.00

L 64565 Frames 539-540 — Distillation cylinders (vemulethes). In German. 1.00

L 64566 Frames 541-542 — Vacuum production with steam-jet vacuum pumps. In German. 1.00

L 64567 Frame 543 — Minimum width of vacuum conduits. Closing valves. Vacuum pumps. Steam-jet pump. In German. 1.00

L 64568 Frames 544-545 — Tray-dryer of the machine works "Imperial." In German. 1.00

L 64569 Frame 546 — Drying of "Tanigan LL" ammonia salt on the newly mounted V&A- roller. In German. 1.00

L 64570 Frames 547-554 — The extraction of water from alcohol by the plaster-of-Paris method. In German. 1.00

L 64571 Frames 555-556 — "Imperial" tubular dryer for "Vulkacit DM." In German. 1.00

L 64572 Frames 557-559 — Single-roller-dryer for H-acid. In German. 1.00

L 64573 Frame 560 — Turbo-mixer. In German. 1.00

L 64574 Frames 561-564 — "Hildebrandt" - ball-mill with airstream-sifting device. In German. 1.00

L 64575 Frame 565 — "Alexanderwerk" - universal grinder. In German. 1.00

L 64576 Frames 566-569 — "Plath" - fine mill. In German. 1.00

L 64577 Frame 570 — Lining for apparatus. In German. 1.00

L 64578 Frames 571-572 — Höchst "Asplit" cement. In German. 1.00

L 64579 Frame 573 — Washers made of cardboard as substitute for asbestos or klingerite. In German. 1.00

L 64580 Frames 573A-574 — Rubber in place of rubberized graphitized asbestos rope. "Hecker" - metal asbestos in place of klingerite. In German. 1.00

L 64581 Frame 575 — Porcelain. In German. 1.00

L 64582 Frame 576 — "Contrasid." Non-sparking tools from nickleberyllium. In German. 1.00

L 64583 Frame 577 — Fe-material of the Wesseling Foundry. (Fe = 95% antimony). In German. 1.00

L 64584 Frame 578 — Use of rubber-lined vessels and conduits in the equipment for salicylic acid production. In German. 1.00

L 64585 Frames 579-581 — Rules about the resistance to corrosion of lead. In German. 1.00

L 64586 Frames 582-587 — Cast iron resistant to lyes and acids. In German. 1.00

L 64587 Frames 588-590 — Manufacture of homogeneous leaded pipes. In German. 1.00

L 64588 Frame 591 — Inspection glass. In German. 1.00

L 64589 Frame 592 — Floater; liquid-level indicator. Two-colour-mirror-reflection-liquid-level-indicator. Condensation-pot manometer. In German. 1.00

L 64590 Frame 593 — Safety metal coverings. In German. 1.00

Chemical Engineering and Equipment (contd)

L 64591 Frames 594-595 — Remote control of fluid-levels. In German. 1.00

L 64592 Frames 596-598 — Lead. In German. 1.00

L 86337 Frames 599-601 — Quick execution of repairs. In German. (These frames are illegible). 2.00

L 64593 Frame 602 — Coils for oxalation apparatus. In German. 1.00

L 64594 Frame 603 — Incompetence of rubber-lined stirring blades with large areas. In German. 1.00

L 64595 Frame 604 — Device for re-grinding of packings surfaces of large boiler flanges. Re-conditioning the surface of badly destroyed packings by covering with rubber. In German. 1.00

L 64596 Frame 605 — Bar-shaped flash-lights for plants endangered by fire. In German. 1.00

L 86338 Frames 606-611 — Reports from Ludwigshafen. Packing box on catalytic autoclaves. In German. (These frames are illegible). 2.00

L 86339 Frames 612-614 — Experiences with the baking drums. In German. (These frames are illegible). 2.00

L 64597 Frames 615-618 — Suitability of the "Multiclone" for the separation of finely divided organic corpuscles from waste gases. In German. 1.00

L 64598 Frames 619-634 — Experiences with independent drives. (Agitators, suction filters, kneaders, centrifuges, roll-dryers, etc.) In German. (Frames 620-621 are missing.) 1.00

L 64599 Frames 635-638 — New experiences in the field of stirring. In German. 1.00

L 64600 Frames 639-642 — Experiences with electrically heated pipes during the distillation of quickly solidifying products. In German. 1.00

L 64601 Frames 643-648 — Experiences with electrical heating methods of various kinds. In German. 1.00

L 86340 Frames 649-654 — Experiences with various burners in high-temperature ovens. In German. (These frames are illegible) 2.00

L 86341 Frames 655-661 — Stoneware filter press. In German. (These frames are illegible). 2.00

L 64602 Frames 662-666 — Scraping suction filter with removal device of the filter cake. In German. 1.00

L 64603 Frames 667-673 — Experiences with circulation-evaporators. In German. 1.00

Frames 674-675 — These frames are illegible.

L 64604 Frames 676-696 — Experiences with ist-apparatus. In German. 2.00

L 86342 Frames 697-700 — Experiences with vertical vacuum pumps. In German. (These frames are illegible). 2.00

L 64605 Frames 701-708 — High-vacuum sublimation. In German. 1.00

L 64606 Frames 709-713 — Experiences with the "Traut" dryer. In German. 1.00

L 64607 Frames 714-719 — "Hildebrandt" -mill and "Hildebrandt" sifter. In German. 1.00

L 64608 Frames 720-723 — Use of "Kerasolith" for the lining of suction-filters. In German. 1.00

L 64609 Frames 724-731 — Experiences with tantalum and platinum as material for the ethyl chloride apparatus. In German. 1.00

L 64610 Frames 732-734 — Experiences with a rubber lined pressure pump for the ethyl chloride apparatus. In German. 1.00

L 64611 Frames 735-747 — Experiences with the "Pfaudler"-enamelling process. In German. 1.00

Frame 748 — This frame is illegible.

L 64612 Frame 749 — Modern factory-control. Automatic extinguishing device in case of spontaneous ignition of organic substances. In German. 1.00

L 64613 Frames 750-752 — Measuring the concentration of solutions on the basis of their conductivity. In German. 1.00

L 64614 Frames 753-756 — Registering viz. signalizing turbidity-gauge for gases and liquids. In German. 1.00

L 64615 Frames 757-760 — Use of automatic temperature-, pressure- and volume controls in catalytic organic plants. In German. 1.00

L 64616 Frames 761-763 — Use of registering pH-measurements in factories. In German. 1.00

L 86343 Frame 764 — Reports Offenbach. (Title page) In German. 2.00

L 64617 Frames 765-766 — Drive for a carboxylation kettle with a capacity of 6000 liters by means of a double-worm-gear with directly connected motor with reversible poles. In German. 1.00

L 64618 Frames 767-768 — Self-priming centrifugal pumps for the conveying toluene. In German. 1.00

L 64619 Frames 769-773 — Central oil-heating for carboxylation kettles. In German. 1.00

L 64620 Frame 774 — Plates for vacuum- chambers according to the Saxegreath-stayholt-welding process. In German. 1.00

L 64621 Frame 775 — Light-grey covering paint on top of an old coat of rust-protective black paint. In German. 1.00

L 64622 Frames 776-777 — Exhaust-pots for vacuum pumps. In German. 1.00

L 86344 Frame 778 — Reports Uerdingen. (Title page). In German. (This frame is illegible). 2.00

L 64623 Frames 779-781 — High-pressure packing boxes. In German. 1.00

L 64624 Frames 782-783 — Experiences with earthen-ware stopcocks. In German. 1.00

L 64625 Frames 784-788 — Heating methods for autoclaves. In German. 1.00

L 64626 Frame 789 — Experiences with high-pressure steam-heating for the stills. In German. 1.00

L 64627 Frames 790-791 — Heat exchanger. In German. 1.00

L 64628 Frames 792-798 — Experiences with pressure-filters. In German. 1.00

L 64629 Frames 799-803 — Use of special steels. In German. 1.00

L 86345 Frame 804 — Reports Wolfen. (Title page). In German. (This frame is illegible). 2.00

L 64630 Frames 805-806 — Innovations in reaction apparatus. Cracking tube. In German. 1.00

L 86346 Frames 807-808 — SW 20 stirrer. In German. (These frames are illegible). 2.00

L 86347 Frames 809-810 — Method of fastening wooden stirring blades. In German. (These frames are illegible). 2.00

L 86348 Frames 811-812 — Scraping stirrers and brush stirrers. In German. (These frames are illegible). 2.00

L 64631 Frames 813-814 — Outlet cocks for crystal pulp. In German. 1.00

L 64632 Frames 815-816 — Proportioning apparatus for powdery substances. In German. 1.00

L 64633 Frames 817-818 — Distribution of liquids. In German. 1.00

L 64634 Frames 819-820a — Suction funnel. In German. 1.00

L 64635 Frames 821-823 — Charging with the aid of wormscrews. In German. 1.00

L 64636 Frames 824-826 — Cooling table. In German. 1.00

L 64637 Frames 827-828 — Fixture for holding lead coils in zig-zag arrangement. In German. 1.00

L 64638 Frames 829-830 — Cooling arrangement for melts. In German. 1.00

L 53959 Frames 831-832 — Pressure filter. In German. 1.00

L 64639 Frames 833-835 — Filtration of vapors. In German. 1.00

L 64640 Frames 835a-836 — Viscose filtering material. In German. 1.00

L 64641 Frames 837-838 — Evaporation ball mill. In German. 1.00

L 64642 Frames 839-843 — Column with slant-slotted bubble caps. In German. 1.00

L 64643 Frames 844-845 — Spade dryer. In German. 1.00

L 64644 Frames 846-847 — Silverplated receiver. In German. 1.00

L 64645 Frames 848-850 — Electric alarm device for agitating apparatus-closing device by means of a rimmed lid. In German. 1.00

L 64646 Frame 851 — Eloxated aluminum cocks. In German. 1.00

L 86349 Frame 852a — Reports Leuna-Works. (Title page). In German. 2.00

L 64647 Frames 852-854 — Experiences with "Hoesch" stirrers. In German. 1.00

L 64648 Frames 855-858 — Experiences with valves for crystal pulp. In German. 1.00

L 64649 Frames 859-861 — Experiences with slide shutters for powdery substances. In German. 1.00

L 64650 Frames 862-864 — Experiences with ball-bearing in crystal pulp. In German. 1.00

L 64651 Frames 865-867 — Experiences with "Rubla" Cocks. In German. 1.00

L 64652 Frames 868-870 — Experiences with tile presses. In German. 1.00

L 64653 Frames 871-873 — Experiences with suction filters with built-in stirring-arms. In German. 1.00

L 64654 Frames 874-878 — Experiences with pill presses. In German. 1.00

L 64655 Frames 879-881 — Experiences with the evaporation of crystal pulp. In German. 1.00

L 64656 Frames 882-889 — Experiences with speeds inside distillation column. In German. 1.00

L 64657 Frames 890-893 — Apparatus for controlling the vacuum in distilling apparatus. In German. 1.00

L 64658 Frames 894-897 — Experiences with the measuring of potentials. In German. 1.00

L 64659 Frames 898-905 — Experiences with the installation of damping devices in millivoltmeters. Zero-marking on thermo-elements. In German. 1.00

L 64472 — Exchange of technical experiences of the Intermediate Products Commission (Zetko). 1935. (Index). 1.00

PB L 85142. HOPKINS, H. H. Manufacture of oxalic acid. (FIAT Final Rept 1307) Jun 1947. 12 p.
Price: Mimeo-50¢
This report describes the manufacture of oxalic acid as conducted by Rudolph Koepp & Co. at Oestrich near Rudesheim. The method is the traditional one involving the manufacture of sodium formate from producer gas, sodium sulfate and lime followed by conversion into calcium oxalate and purification of the free oxalic acid. In addition, what little information could be secured about the I. G. process is described. This process is based upon the nitric acid oxidation of carbohydrates. A plant at Bitterfeld, Russian Zone, converted sugar by this process; but could not be visited.

PB L 17660. I. G. FARBENINDUSTRIE A. G. Miscellaneous reports on pressure hydrogenation. (FIAT Microfilm Reel LF 63 (TOM Reel 164), Frames 1-905. 16 mm microfilm) 1941-1942. 904 f. Price: Microfilm-$6.00 - Enlargement print-$90.50.
The individual items on this reel are listed below and will be available as enlargement prints only. The entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

PB Numbers Frames	Title	Price
L 50641 Frames 1-7	Working of middle oils over dehydrogenation catalysts III. Working of pre-hydrogenation and aromatization middle oils over catalyst 8147. In German.	$ 1.00
L 50642 Frames 8-16	Aromatization contact for "600 at" from previously used "6434." In German.	1.00
L 50643 Frames 17-20	Report on the conference establishing the arrangement of apparatus for the large scale experiment in chamber 804. In German.	1.00
L 50644 Frames 21-25	"Benzinierung" catalysts with HF-treated alumina (clay) as carrier. In German.	1.00
L 50646 Frames 26-34	Exchange of experience in analytical methods at Ludwigshafen, 10 June 1941. In German.	1.00
L 50645 Frames 35-42	Determination of the aromatic hydrocarbon content of gasolines according to the aniline point method. In German.	1.00
L 50647 Frames 43-47	Direction for the determination of the aromatic compound content of gasolines by the aniline point method. In German.	1.00
L 50648 Frames 48-87	Production of DHD-gasoline from 5058/6434 gasoline Scholven at Ludwigshafen, chamber 504. In German.	4.00
L 50649 Frames 88-99	Dehydrogenation of aromatization heavy gasolines. Experiments in the 1 ltr. furnace with K 7994 (light alumina plus 2% MgO plus 12% MoO_3). In German.	1.00
L 50650 Frames 100-107	The influence of the middle oil content of the oil for making coal into a paste on the composition of the newly formed products during the processing of Silesian coal K 1197 under various conditions. In German.	1.00
L 50651 Frames 108-110	Flowsheet of an alkylation plant. In German.	1.00
L 50652 Frames 111-118	Overload curves and chemical constitution of the fuels. In German.	1.00
L 50653 Frames 119-122	Nitride formation on chromium steels during the high pressure of gasoline synthesis and its prevention. In German.	1.00
L 50654 Frames 123-129	Experiments of the Anic with fluoride catalysts. In German.	1.00
L 50655 Frames 130-132	New pre-hydrogenation catalysts prepared by diluting 5068 with ZnS. In German.	1.00
L 50656 Frames 133-142	Calculation of the heat of reaction in dehydrogenations. In German.	1.00
L 50657 Frames 143-153	Present status of hydrocarbon synthesis from CO-H_2-mixtures. In German.	1.00
L 50658 Frames 154-166	Conference on carbon monoxide-hydrogen syntheses. Berlin, Länderbank, 1 July 1941. In German.	1.00
L 50659 Frames 167-185	Experiments for heating up coal slime. In German.	1.00
L 50660 Frames 186-189	Aromatisations experiments at 45 atm. with a catalyst of decreasing action. In German.	1.00
L 50661 Frames 190-192	Determination of solid aromatics in a residue from pitch hydrogenation Pölitz. In German.	1.00
L 50662 Frames 193-213	Splitting of middle and heavy oil fractions from petroleum pressure distillates over dehydrogenation catalysts. In German.	1.00
L 50663 Frames 214-226	Analysis, separation and hydrogenation of the components of coal structure (Quotations from the literature). In German.	1.00
L 50664 Frames 227-234	Aromatization of middle oil from the liquefaction of coal with additions of sumpf gasoline at 600 atm. over bleaching earth catalysts. In German.	1.00
L 50666 Frames 235-237	Alumina (clay) -molybdenum-nickel and alumina (clay)-tungsten-nickel pre-hydrogenation catalysts. In German.	1.00
L 50665 Frames 238-242	Hydrogenation experiments with coal of different petrographic composition in rotary autoclaves. In German.	1.00
L 50667 Frames 243-256	Report of the committee dealing with problems of quality and planning. In German.	1.00
L 50668 Frames 257-265	Correlation between the capability of oils for "benzination" and their nitrogen content. In German.	1.00
L 50669 Frames 266-270	Differences between the deparaffining plant at Lützkendorf and the pilot plant at Ludwigshafen. In German.	1.00

Miscellaneous Chemicals (contd)

L 50670 Frames 271-274 — Monthly production of 20,000 tons of aviation gasoline at Gelsenberg by means of catalytic cracking. In German. 1.00

L 50671 Frames 275-277 — Some pressure hydrogenation equilibria, calculated according to Nernst's approximation formula. In German. 1.00

L 50672 Frames 278-283 — The formation of unsaturated hydrocarbons in the hydrogenation of carbon monoxide. In German. 1.00

L 50673 Frames 284-295 — Present status of the DHD-plants Ludwigshafen/Oppau and Pölitz. In German. 1.00

L 50674 Frames 296-318 — Pilot plant experiments for the removal of paraffin from propane. In German. 2.00

L 50675 Frames 319-349 — Exchange of experiences on 4 Dec. 1941, at Ludwigshafen/Rhein. In German. 3.00

L 50677 Frames 350-356 — Low pressure splitting of (50 atm) petroleum middle oils. In German. 1.00

L 50676 Frames 357-369 — Activity report Nov. 1941. In German. 1.00

L 50678 Frames 370-382 — Experiments for the improvement of lubricating oils by means of catalyst 8376 in a 1 ltr. furnace. Comparison with catalyst 5058. In German. 1.00

L 50679 Frames 383-392 — Chemical high pressure processes. In German. 1.00

L 50680 Frames 393-406 — Processes for the production of knock-resistant hydrocarbons. In German. 2.00

L 50681 Frames 409-411 — Working method of deparaffination plant at Lützkendorf. In German. 1.00

L 50682 Frames 412-415 — Further sludge filtration tests with various solvents. In German. 1.00

L 50683 Frames 416-427 — Specific heat figures. In German. Illegible. 1.00

L 50685 Frames 428-443 — "Benzinierung" of catalyst 6434: Dependence of gasification, efficiency, octane numbers, etc., on the gasoline end point and the through-put, using petroleum middle oil feed. In German. 1.00

L 50684 Frames 444-446 — Temperature measurement in the Sumpf phase furnaces. In German. 1.00

L 50686 Frames 447-480 — Production of DHD-gasoline from 5058 pre-hydrogenation gasoline of the hydrogenation plant Merseburg. In German. 3.00

L 50687 Frames 481-483 — Filtration of hydrogenation waste sludge with addition of sulfite waste liquor. In German. 1.00

L 50688 Frames 484-485 — Institutes and research-workers in the U.S.S.R. who are engaged in processing particularly hydrogenation of coal, tars and crude oils. In German. 1.00

L 50689 Frames 486-488 — Production figures of various hydrogenation plants during October 1941. In German. 1.00

L 50690 Frames 489-490 — Propane filter. In German. 1.00

L 50692 Frames 491-493 — Cyclohexane. In German. 1.00

L 50691 Frames 494-499 — Gas phase, large scale experiment 1939. Chamber 604. Processing of middle oil from coal liquefaction and middle oil from coal tar into aromatic gasoline CV 2b and CV 5b over catalyst 7019 L 8. In German. 1.00

L 50693 Frames 500-503 — Aromatic hydrocarbons in hydrogenation products. In German. 1.00

L 50694 Frames 504-512 — Polycylic solid aromatic hydrocarbons from hydrogenation products. In German. 1.00

L 50695 Frames 513-523 — Work concerning the "Oxo process." In German. 1.00

L 50697 Frames 524-525 — Comparison of the 10 ltr. coal furnace with large scale technique. In German. 1.00

L 50696 Frames 526-527 — The stability of carbazole during hydrogenation. In German. 1.00

L 50698 Frames 528-535 — Polycyclic, aromatic hydrocarbons in various tars and crude oils. In German. 1.00

L 50699 Frames 536-538 — Hydrogenation of anthracane residues. In German. 1.00

L 50700 Frames 539-544 — Theory of decomposition (dis-integration) of coal-derivatives (humic acid derivatives) in the Sumpf and gaseous phase. In German. 1.00

L 50701 Frame 545 — Solubility of coronene and "Benzperylen" at 20°C. In German. 1.00

L 50702 Frames 546-550 — Oxydation experiments and use of oxydation products according to the stage reached on 1 April 1940. In German. 1.00

L 50703 Frames 551-560 — Directions for the preliminary analysis of oil shales. In German. 1.00

L 50704 Frames 561-565 — Observation on catalysts, particularly cracking catalysts. In German. 1.00

L 50705 Frames 566-574 — Ageing symptoms of insulating oils. In German. 1.00

L 50706 Frames 575-580 — Exchange of experiences. Welding inside used benzination and coal furnaces. In German. 1.00

L 50707 Frames 581-584 — The conversion of unsaturated hydrocarbons with high molecular weight into alcohols. In German. 1.00

Miscellaneous Chemicals (contd)

L 50708 Frames 585-589 — Furnace 504. Change to regeneration. In German. Illegible. 1.00

L 50709 Frames 590-599 — Treatment of heavy oils over catalyst 7360. 3. Consumption of hydrogen in the treatment of Wienhagen oil residues. In German. 1.00

L50710 Frames 600-628 — High power motor fuels. In German. 3.00

L 50711 Frames 629-637 — Method for the approximate calculation of overload curves from the octane number of the residual gasoline and from the aromatic hydrocarbon content. In German. 1.00

L 50712 Frames 638-639 — Another statement on the question 300 versus 600 atm. In German. 1.00

L 50713 Frames 640-648 — Tests on sludge filtration. In German. 1.00

L 50714 Frames 649-657 — Hydrogenation, splitting, hydrogenation and cracking of "Eybol" and "Eybol" residues. In German. 1.00

L 50715 Frames 658-661A — Direct "Benzinierung" of middle oil from liquefaction of coal over catalysts 6434 at 600 atm. In German. 1.00

L 50716 Frames 662-666 — Study of the use of 700 or 300 atm in the gaseous phase. In German. 1.00

L 50717 Frames 667-679 — Composition of off-gases in "Benzinierung" and aromatization. In German. 1.00

L 50718 Frames 680-688 — Statement on the question 300 versus 700 atm. for Upper Silesia. In German. 1.00

L 50719 Frames 689-716 — Cracking experiments over K 6108 ("Terrana HF") under different pressure conditions. In German. 3.00

L 50720 Frames 716A-716Q — Cracking of gasolines and gas oil under hydrogen pressure. In German. 2.00

L 50721 Frames 717-728 — Theoretical meaning of overload curves. In German. 1.00

L 50722 Frames 729-751 — Development of prehydrogenation catalysts. Part III. Alumina, -Mo-Ni-catalysts. In German. 2.00

L 57023 Frames 752-760 — The influence of catalyst, pressure and product-partial pressure during cracking and hydrogenation of Bruchsal gas oil. In German. 1.00

L 50724 Frames 761-763 — Laboratory and plant experiments for increasing the yield in low carbonization oil during low temperature carbonization of residues containing asphalt. May 12, 1943. Dr. Horn/Dr. Hins. In German. 1.00

L 50725 Frame 764 — Installation of a new oil tank. In German. 1.00

L 50726 Frames 765-768A — Influence of the product-partial pressure in the aromatization of middle oil (Scholven) from coal liquefaction over alumina "Terrana" contact 8686. In German. 1.00

L 50727 Frames 769-772 — Hydrogenation results in the rotary autoclave with coal samples from the Radzionkau mine in Upper Silesia. In German. 1.00

L 57028 Frames 773-775 — Hydrogenation results with Spanish coals in the rotary autoclave. In German. 1.00

L 50729 Frames 776-779 — Processing of primary bitumen to heavy oil. In German. 1.00

L 50730 Frames 780-783 — Present view on the report of the hydrogenation works regarding experiments for increasing the low temperature carbonization yield by addition of sulfur. In German. 1.00

L 50731 Frame 784 — Isolation and determination of coronene in hydrogenation residue. In German. 1.00

L 57032 Frames 785-786 — Production of sodium sulfide. In German. 1.00

L 57033 Frames 787-789 — The chemical composition of the crusts forming on preheaters. In German. 1.00

L 50734 Frames 790-793 — Brief report by Schappert on occasion of the exchange of experiences on 22 March 1943. In German. 1.00

L 50735 Frames 794-806 — Reducing the stress on the Sumpf phase preheaters. In German. 1.00

L 50736 Frames 807-808 — Isolation and determination of coronene in pitch and hydrogenation residues. In German. 1.00

L 50737 Frame 809 — Pyridine in Sumpf phase gasoline. In German. 1.00

L 50738 Frames 810-815 — Hydrogenation experiments in the rotary autoclave with Brux tar (P1397 original). In German. 1.00

L 50739 Frames 816-820 — Improvements in an experimental apparatus for working with powder catalyst. In German. 1.00

L 50740 Frames 821-822 — Workers. Drafting for the Army. In German. 1.00

L 50741 Frames 823-827 — Quarterly reports on hydrogenation catalysts. In German. 1.00

L 50742 Frame 828 — Chemical problems connected with the heating of coal paste. In German. 1.00

L 50743 Frames 829-843 — Activity report for February-March 1943. In German. 1.00

L 50744 Frames 844-848 — Experiments in a 100 ccm furnace for obtaining pure aromatic hydrocarbons, particularly toluene from xylene and DHD residue. In German. 1.00

L 50745 Frame 849 — De-ashing of coal. In German. 1.00

L 50746 Frames 850-852 — Data on the deparaffining of propane. In German. 1.00

L 50747 Frames 853-854 — Hydrogenation plant in Teruel (Spain). In German. 1.00

L 50748 Frames 855-859 — Hydrogenation tests with Puertollano coal K 1253 in the rotary autoclave. In German. 1.00

L 50749 Frames 861-861 — Regeneration of coal paste diluted with middle oil. In German. 1.00

L 50750 Frames 862-864 — Steam cylinder oil with low solidifying point. In German. 1.00

L 50751 Frames 865-866 — Discussion at the "Reichsforschungsrat." In German. 1.00

L 50752 Frames 867-869 — Quarterly reports on hydrogenation catalysts Scholven. In German. 1.00

L 50753 Frames 870-872 — Comparison of the carbon and iron consumption for coal hydrogenation and for low temperature carbonization followed by hydrogenation. In German. 1.00

L 50754 Frames 873-885 — Reduction equilibria (hydrogen-fluoride-partial pressures) of fluorides with regard to their catalytic action. In German. 1.00

L 50755 Frames 886-900 — Experiments concerning the dilution of lubricants. In German. 1.00

L 50756 Frames 901-905 — Reactions of carbon monoxide with hydrocarbons. In German. 1.00

L 50640 — Hochdruckverfahren Laboratories: Miscellaneous Reports and Papers. (Index) 1.00

PB L 17691. I.G. FARBENINDUSTRIE A.G. Papers on hydrogenation, prehydrogenation, benzination and cyclization. Files of Dr. Peters. (FIAT Microfilm Reel LF 112 (TOM) 173, frames 1-948) Feb 1946. 947 f. Price: Microfilm-$6.00 - Enlargement Print-$95.00

The individual items on this FIAT microfilm reel are listed below. They will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

PB Numbers Frames	Title	Price
L 46602 Frames 1-2	On the question of converting gasoline production from end point 150° to 180°. In German.	1.00
L 46603 Frames 3-11	The benzination of fractions of prehydrogenated middle oil from coal liquifaction. In German.	1.00
L 46604 Frames 12-13	On the question of converting gasoline production from end point 150° to 180°. In German.	1.00
L 46605 Frames 14-25	Benzination of by-products from the hydrogenation works. In German.	1.00
L 46606 Frames 26-30	Behavior of acid and basic components of middle oil from coal liquifaction during the prehydrogenation with alumina catalysts. In German.	1.00
L 46607 Frames 31-32	Use of alumina-W-Ni-contact 7846 W 250-8376 in different processes. In German.	1.00
L 46608 Frames 33-39	Two step gas phase (at 300 atm.) gasolines from different raw materials and with different prehydrogenation catalysts. In German.	1.00
L 46609 Frames 40-45	6434 light gasoline from prehydrogenated coal middle oil. In German.	1.00
L 46610 Frames 46-48	Light gasoline from coal tar middle oil over catalyst 7846/6434. In German.	1.00
L 46611 Frames 49-61	Catalysts 7846 for the prehydrogenation of middle oil from coal liquefaction (Scholven) from Brüx tar and from S middle oil from Rhine brown coal. In German.	1.00
L 46612 Frames 62-70	Light gasolines up to the 100° fraction from the benzination hydrogenation of various starting products. In German.	1.00
L 46613 Frames 71-72	5058/6434 Aviation gasolines (table). In German.	1.00
L 46614 Frames 73-74	Aviation gasoline from coal middle oil (text to above table). In German.	1.00
L 46615 Frames 75-82	6434 gasolines from various starting materials (table). In German.	1.00
L 46616 Frames 83-90	Processing of sumpfphase middle oil from Rumanian crude oil P 1490 over 8376/6434 or over 8434/8434. In German.	1.00
L 46617 Frames 91-94	Pressure hydrogenation of Rumanian crude oil to motorcar oil and Diesel oil. In German.	1.00
L 46618 Frames 95-98	Cracking of petroleum A-middle oils over catalyst 6434. In German.	1.00
L 46619 Frames 99-101	Benzination of middle oil from Caucasus crude oil P 1548. In German.	1.00
L 46620 Frames 102-111	Cracking of petroleum a or s-middle oils over 6434. In German.	1.00
L 46621 Frames 112-114	Aviation gasolines and high efficiency motor fuels from Rumanian oils. In German.	1.00
L 46622 Frames 115-116	Aviation gasoline from German distillation gasoline. In German.	1.00
L 46623 Frames 117-119	Gasoline production from Moras oil. In German.	1.00
L 46624 Frames 120-121	Pressure refining TM-paraffin Zeitz in chamber of 501 over catalyst 8376. In German.	1.00
L 46625 Frames 122-123	6434 processing of Leuna middle oil at Böhlen or Magdeburg. In German.	1.00
L 46626 Frames 124-141	On gas phase processing of lignite middle oil at the Brabag. In German.	2.00

L 46627 Frames 142-153 — Exchange of experience on gas phase operation. In German. 1.00

L 46628 Frames 154-162 — Use of the alumina-W-Ni prehydrogenation catalyst 8376=7846#250 for various products. Second part. Gasoline and middle oil from lignite liquefaction Leuna. In German. 1.00

L 46629 Frames 163-170 — Report on a visit to Merseburg on Jun 9 and 10, 1941. In German. 1.00

L 46630 Frames 171-183 — Prehydrogenation of Leuna liquefaction Bi + Mi with the new alumina-Mo-Ni catalyst 7846. Experiments in 200 cc. furnaces. In German. 1.00

L 46631 Frames 184-186 — Combination 5058/6719 for prehydrogenation of lignite liquefaction Bi + Mi Leuna. In German. 1.00

L 46632 Frames 187-194 — Miscellaneous papers on bases in prehydrogenation middle oils. In German. 1.00

L 46633 Frames 195-197 — The prehydrogenation of lignite middle oils with diluted catalyst. In German. 1.00

L 46634 Frames 198-199 — Purification catalysts 7525, 7675, 7360, 7846. In German. 1.00

L 46635 Frames 200-202 — Prehydrogenation of brown coal liquefaction middle oils Leuna over 7846. In German. 1.00

L 46636 Frames 203-213 — Gasoline production from Leuna S-stripper with a new prehydrogenation catalyst 7525. In German. 1.00

L 46637 Frames 214-215 — Prehydrogenation of lignite liquefaction middle oil at a hydrogen pressure of 200 atm. In German. 1.00

L 46638 Frames 216-220 — Prehydrogenation of lignite middle oil Leuna over K 7360, at a hydrogen pressure of 180 atm. In German. 1.00

L 46639 Frames 221-224 — Benzination of 7360 prehydrogenated Leuna liquefaction middle oil. In German. 1.00

L 46640 Frames 225-230 — Processing of sumpf gasoline and middle oil from Rheinbraun-Wesseling over catalysts 8376/6434. In German. 1.00

L 46641 Frames 231-255 — Use of alumina-W-Mi prehydrogenation catalyst 8376 and mi 7846#250 for various products. In German. 2.00

L 46642 Frames 256-268 — Prehydrogenation and benzination of various products of the Sudetenländische Treibstoffwerke Akt. Ges., Brüx. In German. 1.00

L 46643 Frames 269-270 — Prehydrogenation and benzination of Brüx low temperature carbonisation middle oil. In German. 1.00

L 46644 Frames 271-273 — Gas phase examinations. In German. 1.00

L 46645 Frames 274-275 — Gas phase discussions. In German. 1.00

L 46646 Frames 276-285 — Gasoline production from Brüx tar (P 1397) a + s-Foil over 6719/6434. In German. 1.00

L 46647 Frames 286-317 — Benzination of sumpf middle oil from Sudetendeutsche Herkules coal over various catalysts. In German. 3.00

L 46648 Frames 318-319 — Processing of Böhlen tar P 1238 at 250 atm. over catalyst 8376. In German. 1.00

L 46649 Frames 320-328 — Use of alumina-W-Ni-prehydrogenation catalyst 8376=7846#250 for various products. In German. 1.00

L 46650 Frames 329-330 — Working up of Hirschfeld tar. In German. 1.00

L 46651 Frames 331-365 — Processing of middle oil from Estonian shale tar into automobile gasoline. (Several frames are difficult to read.) In German. 4.00

L 46652 Frames 366-392 — Benzination of DHD residue. (Several frames are almost illegible.) In German. 3.00

L 46653 Frames 393-400 — Working up DHD residues from Rumanian gasoline from large-scale experiment Ka 801, to obtain 87 O.N. fuels or DHD starting material. In German. 1.00

L 46654 Frames 401-408 — Cracking catalysts free from tungsten, made up of SiO_2-Al_2O_3-Fe_2O_3 hydroxy hydrate mixtures treated with HF. In German. 1.00

L 46655 Frame 409 — Composition and preparation of 6434. In German. 1.00

L 46656 Frames 410-415 — New benzination catalysts. Benzination catalysts, free from tungsten and of the general composition: oxide-fluoride mixtures of Si, Al and Fe. In German. 1.00

L 46657 Frames 416-417 — Silicate catalysts. In German. 1.00

L 46658 Frames 418-420 — ANIC catalysts. In German. 1.00

L 46659 Frames 421-425 — Recent investigations in the field of benzination catalysts. In German. 1.00

L 46660 Frames 426-439 — New benzination catalysts. (Several frames are difficult to read.) In German. 1.00

L 46661 Frames 440-441 — Comparison of differently prepared fluoride catalysts. In German. 1.00

L 46662 Frames 442-445 — Influence of the carrier in catalysts of the type 6434 on the results of the benzination. In German. 1.00

L 46663 Frames 446-448 — Conference with Kaftal at Berlin. In German. 1.00

L 46664 Frames 449-453 — Benzination of Bruchsal gas oil at 200 atm. with 600 atm.-aromatisation catalysts. In German. 1.00

L 46665 Frames 454-455 — Composition of the fluoride catalysts of the ANIC. In German. 1.00

L 46666 Frames 456-460 — Contribution to the question of the decrease in efficiency of ANIC fluoride catalysts. In German. 1.00

L 46667 Frame 461 — Benzination catalysts with HF-treated alumina as carrier. In German. 1.00

L 46668 Frames 462-464 — Experiences with fluoride catalysts. In German. 1.00

Miscellaneous Chemicals (contd)

L 46669 Frames 465-470 — Tungsten carbide as hydrogenation catalyst. In German. 1.00

L 46670 Frames 471-482 — New benzination catalysts. In German. 2.00

L 46671 Frames 483-488 — Benzination catalysts with HF-treated alumina as carrier. In German. 1.00

L 46672 Frames 489-490 — Report of the Milano branch of ANIC and of the Liverne plant. 1941. In German. 1.00

L 46673 Frames 491-506 — Conference at Ludwigshafen, 1941. In German. 2.00

L 46674 Frames 507-512 — Comparative tests with ANIC fluoride catalysts and 6434. In German. 1.00

L 46675 Frames 513-518 — Benzination with ANIC-(fluoride) catalysts and 6434. In German. 1.00

L 46676 Frames 519-525 — Experiments with fluoride catalysts carried out by the ANIC. In German. 1.00

L 46677 Frames 526-528 — Testing of ANIC fluoride catalysts. Benzination of Bruchsal gas oil. In German. 1.00

L 46678 Frames 529-537 — Conference with Mr. Kaftal from Messrs. ANIC, 1941. In German. 1.00

L 46679 Frames 538-540 — Tables concerning tests carried out with fluoride catalysts. In German. 1.00

L 46680 Frames 541-548 — Terrana-zinc sulfide-tungsten and Terrana-zinc sulfide-molybdenum catalysts for benzination. In German. 1.00

L 46681 Frames 549-553 — Replacement of the Terrana in 6434 by synthetic silicates. In German. 1.00

L 46682 Frames 554-557 — Benzination with Terrana-zinc sulfide catalysts. In German. 1.00

L 46683 Frames 558-560 — The influence of sulfur addition on the benzination over catalyst 6434. In German. 1.00

L 46684 Frames 561-562 — The influence of sulfur addition on the results of the benzination of crude petroleum gas oil. (One frame difficultly readable.) In German. 1.00

L 46685 Frames 563-564 — Comparison of the sensitivity of catalysts 8797 and 6434 to nitrogen and other disturbing agents. In German. 1.00

L 46686 Frames 565-567 — Influence of the nitrogen content on the capability of oils to be benzinated. In German. 1.00

L 46687 Frames 568-579 — Influence of the nitrogen content of a material on the case with which it can be determined and on the capability of this material to be benzinated. In German. 1.00

L 46688 Frames 580-588 — The determination of the nitrogen content of middle oils. In German. 1.00

L 46689 Frames 589-591 — The influence of added organic nitrogen compounds on the benzination results of crude petroleum gas oil over catalyst 6434. Second part. In German. 1.00

L 46690 Frames 592-595 — Influence of added sulfur on Terrana-iron fluoride catalysts. In German. 1.00

L 46691 Frames 596-600 — Benzination catalysts from iron fluoride, on bleaching earth. In German. 1.00

L 46692 Frames 601-615 — Benzination with catalyst 6434. (Some frames are difficult to read.) In German. 2.00

L 46693 Frames 616-620 — Influence of added organic nitrogen compounds on the benzination results of crude petroleum gas oil over catalyst 6434. In German. 1.00

L 46694 Frames 621-628 — Influence of the nitrogen content of oils on their capability to be benzinated. In German. 1.00

L 46695 Frames 629-632 — Mathematical formulation of the cracking activity of benzination catalysts or of the capability of oils to be benzinated. In German. 1.00

L 46696 Frames 633-641 — Correlation between the nitrogen content of oils and their capability to be benzinated. In German. 1.00

L 46697 Frames 742-644 — Upper limit for the N and phenol content and lower limit for the aniline point of 6434 charges. In German. 1.00

L 46698 Frames 645-646 — Lignite sump phase. In German. 1.00

L 46699 Frames 647-649 — Influence of added sulfur on the benzination with chromium-oxide-containing catalysts. In German. 1.00

L 46700 Frames 650-654 — Sensitivity to nitrogen of Terrana-tungsten sulfide catalysts. In German. 1.00

L 46701 Frames 655-660 — Testing the capacity of 6434 for P 189 gas oil. (One frame is difficult to read.) In German. 1.00

L 46702 Frames 661-665 — Experiments regarding the sensitivity of catalysts to nitrogen. In German. 1.00

L 46703 Frames 666-671 — Processing of Russian gasoline. In German. 1.00

L 46747 Frames 672-680 — Working Russian heavy gasoline over 6434. In German. 1.00

L 46704 Frame 681 — Russian aviation gasoline. In German. 1.00

L 46705 Frames 682-691 — Improvement of various Russian gasolines. In German. 1.00

L 46706 Frames 692-696 — Benzination of SO_2-extract from synthesis middle oil. In German. 1.00

L 46707 Frames 697-698 — Experiments for the establishment of an equilibrium between aromatic hydrocarbons and naphthene on the tungsten sulfide catalyst 5058. In German. 1.00

L 46708 Frames 699-702 — Equilibrium between aromatic hydrocarbons and naphthene. In German. 1.00

L 46709 Frames 703-710 — Cyclohexane from benzene. In German. 1.00

L 46710 Frames 711-719 — Establishment of an equilibrium between aromatic hydrocarbons and naphthene on the nickel-tungsten catalyst 6718. In German. 1.00

Miscellaneous Chemicals (contd)

L 46711 Frames 720-725 — Benzene-cyclohexane equilibrium. In German. 1.00

L 46712 Frames 726-731 — The situation of the equilibrium in dehydrogenation of cycloparaffins to aromatic hydrocarbons. In German. 1.00

L 46713 Frames 732-733 — Refining of Estonian shale gasoline. In German. 1.00

L 46714 Frame 734 — Refining of Estonian low temperature carbonization gasoline. In German. 1.00

L 46715 Frames 735-738 — The influence of pressure in the refining of benzene. In German. 1.00

L 46716 Frames 739-747 — Experiments toward the refining of heavy gasoline over alumina-molybdenum-nickel catalyst in the 1 ltr. furnace. In German. 1.00

L 46717 Frames 748-752 — Working of lignite light oil by the Rostin-D.C.G.G. process. In German. 1.00

L 46718 Frames 753-754 — Refining of Sumpf gasoline from Scholven. In German. 1.00

L 46719 Frames 755-758 — Rostin process. In German. 1.00

L 46720 Frames 759-767 — Experiments for the refining of aviation gasoline, crude gasoline and heavy gasoline fractions over alumina-tungsten-nickel catalyst. In German. 1.00

L 46721 Frames 768-769 — Refining of DHD-gasoline at a H_2 pressure of 25 atm. Comparison of 3 catalysts. In German. 1.00

L 46722 Frames 770-771 — Refining of CV_2b gasoline with 5058 and 3510 at 50 atm. In German. 1.00

L 46723 Frames 772-773 — Refining of CV_2b-gasoline mixed with aromatisation B middle oil of chamber 501 160° (1:3) by means of different catalysts at 250 atm. In German. 1.00

L 46724 Frames 774-800 — Various short papers on CV_2b refining by catalytic pressure hydrogenation. In German. 2.00

L 46725 Frames 801-804 — Refining of gasoline from low temperature carbonization of coal over catalyst 7745. In German. 1.00

L 46726 Frames 805-807 — Aromatisation gasoline and bomb test. In German. 1.00

L 46727 Frames 808-810 — Experiments aiming at the refining of dehydrogenated aromatisation-heavy-gasoline Ka.501 at atmospheric pressure. In German. 1.00

L 46728 Frames 811-812 — De-sulfurization of Mossul oil. In German. 1.00

L 46729 Frames 813-815 — Experiments for testing the behavior of hydrogenated polymer gasoline as motor fuel. In German. 1.00

L 46730 Frames 816-818 — Dehydrogenation and refining of polymer gasoline. In German. 1.00

L 46731 Frames 819-824 — Di-iso-butylene hydrogenation over diluted catalyst and at low pressures. In German. 1.00

L 46732 Frames 825-829 — Note on the hydrogenation of diisobutylene to isooctane by means of alumina-tungsten-nickel catalyst at 250 atm. In German. 1.00

L 46733 Frames 830-838 — Hydrogenation, splitting hydrogenation and cracking of kybol or kybol residues. In German. 1.00

L 46734 Frames 839-842 — Hydrogenation of diisobutylene over iron catalyst. In German. 1.00

L 46735 Frames 843-846 — Pilot plant experiments for processing alcohols from Oppau into 110 - gasoline. In German. 1.00

L 46736 Frames 847-851 — Hydrogenation of crude isobutyrone over catalyst 7878. In German. 1.00

L 46737 Frames 852-855 — Continuous hydrogenation of "Pinakon". In German.

L 46738 Frames 856-857 — Status of the experiments Ka 803. In German. 1.00

L 46739 Frames 858-860 — Conference in Oppau on the processing of isobutyl oil residues in chamber 803. In German. 1.00

L 46740 Frames 861-863 — Gasoline from isobutyl oil by catalytic pressure hydrogenation. In German. 1.00

L 46741 Frames 864-865 — High performance motor fuel (O.N. 165) from butyl alcohol. In German. 1.00

L 46742 Frame 866 — Heat of reaction of the alcohol reduction. In German. 1.00

L 46743 Frames 867-869 — Working up of higher butyl alcohols. In German. 1.00

L 46744 Frames 870-873 — Experiments on the aromatisation of pure n-heptane and paraffinic heavy gasoline at atmospheric pressure. In German. 1.00

L 46745 Frames 874-878 — The cyclization of paraffinic hydrocarbons. In German. 1.00

L 46746 Frames 879-938 — Miscellaneous papers on dehydrogenation, aromatisation and cyclization at atmospheric pressure. In German. 5.00

L 46748 Frames 939-948 — Calculations concerning the hydrogenation of naphthene. In German. 1.00

L 46601 — Papers on Hydrogenation, Prehydrogenation, Pensination and Cyclization. Files of Dr. Peters. Index. 1.00

PB L 81692. I.G. FARBENINDUSTRIE A.G. Reports on the effect of various catalysts in hydrogenation. (FIAT Microfils Reel LF 27, (TOM 145, Frames 1-538) 1935-1944. 538 f. Price: Microfilm-$7.00 - Enlargement Print-$35.00

This FIAT microfils reel contains 73 reports on the effect of various catalysts in oil hydrogenation. Individual reports, listed below, will be available as enlargement prints. Please give PB and frame numbers when ordering an individual item. These reports are in German.

Frames	Title	Price
1-3 PB L 81692	On the problem of horizontal sump-phase furnaces. By Hupfer. 1944. In German.	$2.00

Miscellaneous Chemicals (contd)

4-17
PB L 81692
Hydrogenating cracking of stripper heavy-oil from Silesian bituminous coal by means of a finely dispersed catalyst. By Hupfer and Leonhardt. 1944. In German. 3.00

18-29
PB L 81692
The problem of the start of the reaction. Evaluation of experiments with the 10-liter furnace. By Hupfer and Leonhardt. 1944. In German. 3.00

30-31
PB L 81692
Processing of bituminous coal for gasoline, middle oil and light heavy oil. By Hupfer. 1944. In German. 2.00

32-33
PB L 81692
Processing of lignite tar from Central Germany at 600 atm. By Hupfer. 1944. In German. 2.00

34
PB L 81692
Experiences with the preheating of Brüx tar. By Hupfer. 1944. In German. 2.00

35-50
PB L 81692
Residue distillation. By Hupfer and others. 1944. In German. 3.00

51
PB L 81692
Suggestions for the utilization of radioactive indicators in the sump-phase By Hupfer. 1944. In German. 2.00

52-55
PB L 81692
Remarks on the theory of ash balance. By Hupfer. 1944. In German. 2.00

56-61
PB L 81692
Relations between coal analyses and hydrogenation behavior. By Hupfer. 1944. In German. 2.00

62-98
PB L 81692
Coal analyses and hydrogenation behavior. By Hupfer. 1944. In German. 5.00

99
PB L 81692
Arsenic as sump-phase catalyst. (This item is poorly legible). By Hupfer. 1943. In German. 2.00

100
PB L 81692
Concerning catalyst consumption at Wesseling. By Hupfer and Leonhardt. 1943. In German. 2.00

101-105
PB L 81692
Hydrogenation of Janina coal at 600 atms. for gasoline and middle oil. First results. By Hupfer and others. 1943. In German. 2.00

106-107
PB L 81692
Hydrogenation products as binders. By Hupfer and Rank. 1943. In German. 2.00

108
PB L 81692
Heat transfer characteristics during the hydrogenation of Silesian bituminous coal for gasoline and middle oil based on measurements in a 10-liter furnace. (This is a graph only). By Hupfer. n.d. In German. 2.00

109-110
PB L 81692
Processing of petroleum in straight passage. By Hupfer and Leonhardt. 1943. In German. 2.00

111-167, 222A
PB L 81692
Processing of Brüx tar for gasoline and middle oil at 600 and 250 atms. in a 10-liter furnace. By Hupfer and Leonhardt. 1943. In German. 7.00

168-177
PB L 81692
Production of slightly hydrogenated coal from "K 1197" at 300 atms. By Hupfer and others. 1943. In German. 2.00

178-194
PB L 81692
Processing of old Gelsenberg coal ("K 1086") at 600 atms. for gasoline and middle oil. By Hupfer and others. 1943. In German. 3.00

195-222
PB L 81692
Addition of sodium sulfide in the hydrogenation of bituminous coal. By Hupfer and others. 1943. In German. 4.00

223-226
PB L 81692
Addition of high temperature tar to Silesian bituminous coal. By Hupfer. 1943. In German. 2.00

227-249
PB L 81692
Processing of high temperature coal tar with addition of bituminous coal. By Hupfer and others. 1943. In German. 4.00

250-256
PB L 81692
Iron sulfate as catalyst for bituminous coal. By Hupfer. 1943. In German. 2.00

257-258
PB L 81692
Pretreatment of bituminous coal (early experiments). By Hupfer. 1943. In German. 2.00

259-262
PB L 81692
Working of primary bitumen for heavy oil. By Hupfer. 1943. In German. 2.00

263-265
PB L 81692
Experiments for de-sanding of furnaces carried out in a glass model. By Hupfer. 1943. In German. 2.00

266-287
PB L 81692
Processing of Panuco Oil in a 10-liter furnace. By Hupfer and others. 1943. In German. 4.00

288-322
PB L 81692
Processing of German petroleums in a 10-liter furnace. By Hupfer and others. 1943. In German. 5.00

323-366
PB L 81692
Working of bituminous coal and low temperature tar for briquette binding materials and asphalt free oils. By Hupfer and other. 1943. In German. 6.00

367-371
PB L 81692
Chlorine corrosion. By Hupfer and Leonhardt. 1943. In German. 2.00

372-373
PB L 81692
Rhenish lignite with ammonium sulfate. By Hupfer. 1942. In German. 2.00

374-375
PB L 81692
Catalyst experiments, particularly the effect of the addition of "Sulfigran" in the hydrogenation of Upper Silesian bituminous coal in rotary autoclaves. By Grassl and Schiffmann. 1944. In German. 2.00

376-382
PB L 81692
Suitability of sodium sulfide samples of Dr. Kunzer as catalysts in the sump-phase. By Hupfer and others. 1944. In German. 2.00

383-385
PB L 81692
Substitutes for ammonium chloride in treating coal from Scholven. (Experiments in rotary autoclaves at 350 atmosphere pressure.) By Grassl and Schiffmann. 1944. In German. 2.00

386-391
PB L 81692
Early hydrogenation experiments with chlorinated and oxidized bituminous coal in autoclaves. By Grassl. 1943. In German. 2.00

392-394
PB L 81692
The possibility to replace ammonium chloride in the hydrogenation of Ruhr coal. By Grassl. 1943. In German. 2.00

395-396
PB L 81692
Hydrogenation experiments with a tin-containing flue dust obtained from Hüttenwerke Kayser A.G. Berlin. Experiments carried out in rotary autoclaves. By Grassl and others. 1942. In German. 2.00

397-399
PB L 81692
Processing of Scholven coal (Zweckel coal) with iron catalysts and chlorine. By v. Hartmann. 1942. In German. 2.00

400-402
PB L 81692
Experiments with Upper Silesian coal in a 10-liter furnace with iron-titanium catalysts. By v. Hartmann and Kronig. 1940. In German. 2.00

403
PB L 81692
Some specifications for sodium sulfide. By Gieg, Grassl and Hittmann. 1944. In German. 2.00

404-405
PB L 81692
The effect of sodium sulfide on stripper heavy oil. By Lemme. 1944. In German. 2.00

406-409 PB L 81692 — Study of low temperature carbonization residues from shale with a view to their suitability as sump-phase catalysts. By Grassl. 1943. In German. 2.00

410-416 PB L 81692 — Iron sulfate as catalyst for bituminous coal. By Hupfer. 1943. In German. 2.00

417-421 PB L 81692 — Replacement of molybdenum with iron or lead in coal hydrogenation. By Simon and Grassl. 1935. In German. 2.00

422-423 PB L 81692 — Replacement of molybdenum with iron in coal hydrogenation. By Donath and Klinkhardt. 1935. In German. 2.00

424-429 PB L 81692 — Effect of chlorine in coal hydrogenation as determined in autoclave experiments. No signature. 1934. In German. 2.00

430-440 PB L 81692 — Experiments on the absorption of hydrochloric acid at 200 atms. By Donath and Klinkhardt. (Hand-written). 1934. In German. 3.00

441-443 PB L 81692 — Carriers for catalysts in the sump-phase. By Schmitt. 1933. In German. 2.00

444 PB L 81692 — Vanadium content of hydrogenation residues. By Rank and Wittmann. 1944. In German. 2.00

445 PB L 81692 — This frame is missing.

446-452 PB L 81692 — Exchange of experiences. Centrifugation of residues from the coal phase. No signature. 1944. In German. 2.00

453-454 PB L 81692 — Residue filtration at Pölitz. By Gieg and Rank. 1944. In German. 2.00

455-459 PB L 81692 — Centrifugation of tars and sump-phase residues of tars. No signature. 1944. In German. 2.00

460-461 PB L 81692 — Experiments on the recovery of FeS from carbonization residue. By Lease. 1944. In German. 2.00

462-463 PB L 81692 — Centrifugation experiments with residues from the tar chamber Brüx. By Gieg. 1944. In German. 2.00

464-465 PB L 81692 — Improvement of carbonization yields by means of dilution with oil in the separator. By Hupfer and Leonhardt. 1944. In German. 2.00

466-478 PB L 81692 — Processing of hydrogenation residues rich in asphalt by low temperature carbonization in mixture with coal, loosely poured on. By Bähr. 1941. (Partly illegible.) In German. 3.00

479-483 PB L 81692 — Experiences in the field of residue filtration at Leuna. Signature illegible. 1941. (Not very legible). In German. 2.00

484-486 PB L 81692 — Processing of residues rich in asphalt. By Bähr. 1941. In German. 2.00

487-488 PB L 81692 — Critical review of: Dr. Peukert, Rheinbraun: Measures for the improvement of heat exchange in sump-phase chambers. No signature. 1945. (The last few lines are illegible). In German. 2.00

489-490 PB L 81692 — The problem of maximum preheating in the sump-phase. By Ebeker. 1944. In German. 2.00

491 PB L 81692 — Iron sulfide corrosion in the sump-phase preheater at 700 atms. By Donath and Nonnenmacher. 1943. In German. 2.00

492-493 PB L 81692 — The refining effect of the sump-phase. By Hupfer and Leonhardt. 1942. In German. 2.00

494-495 PB L 81692 — Influence of raw materials on the properties of the product. By Hupfer and Leonhardt. 1942. In German. 2.00

496-502 PB L 81692 — Incrustation of the preheater coil in the 10-liter furnace. By Hupfer. 1942. In German. 2.00

503-514 PB L 81692 — Comparison of hydrogenation of bituminous coal and cracking residues. By Kronig and Schneider. 1937. In German. 3.00

515 PB L 81692 — Effect of available H_2 on H_2 consumption. No signature. 1935. (A table). In German. 2.00

516-518 PB L 81692 — Processing of raw materials by pressure distillation. By Rank. 1944. In German. 2.00

519-526 PB L 81692 — Pressure distillation. Experiments for determining the yield with German petroleum and with lignite tar. By Kronig and others. 1939. In German. 2.00

527 PB L 81692 — Phenol recovery from low temperature carbonized coal tar. By Rank. 1943. In German. 2.00

528-529 PB L 81692 — The possibility to recover phenol in coal hydrogenation. By v. Hartmann and others. 1940. In German. 2.00

530-533 PB L 81692 — Viscosity of fuel oils obtained from bituminous coal. By Hupfer. 1941. In German. 2.00

534-538 PB L 81692 — Contribution on the chemical constitution of the asphalts produced in the hydrogenation of bituminous coal. By Boente. 1942. In German. 2.00

PB L 74114. I. G. FARBENINDUSTRIE A. G., HÖCHST, GERMANY. Organic intermediate products of I. G. Farbenindustrie A. G. (FIAT Microfilm Reel CC 273, Frames not numbered) 1936. 914 f. Price: Microfilm-$6.00 - Enlargement print-$91.50
This FIAT reel contains two volumes of the second edition of a catalog of the organic intermediate products of I. G. Farbenindustrie; the first volume is of trade names, the second volume is of scientific designations. Both are arranged alphabetically. Material explaining the arrangement of the listing and the various designations is included. Among the information listed are: Works where each chemical is made, molecular weight, commission sponsoring the preparation of the chemical, page references, I. G.'s series designations and remarks. In German.

PB L 74760. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Index cards of chemical products. (FIAT Microfilm Reel N 130, Frames 9434-9999 and 1-1703) 1939-1941. 1134 f. Price: Microfilm-$6.00 - Enlargement print-$113.50
This FIAT microfilm reel contains index cards alphabetically arranged (letters N and O), pertaining to dyes, dye intermediates, plastics, soaps, detergents, etc. Trade names and chemical names are stated in most cases; chemical formulas are given in some cases. Frequently starting materials, method of production and uses are mentioned. The card index comprises both domestic and foreign products. In German.

PB L 74774. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Index cards of chemical products. (FIAT

Microfilm Reel M 133, Frames 5153-6217) 1935-1943. 1064 f. Price: Microfilm-$6.00 - Enlargement print-$106.50
This FIAT microfilm reel contains index cards of various chemical products, alphabetically arranged according to trade names. Besides dyes, which are handled mainly, fungicides, disinfectants, tanning agents, fertilizers, finishing agents, etc., are included. The index cards give, in addition to the trade names, the chemical names, occasionally also the chemical formula, production method, uses and pertinent patent number. The years 1935-1943 are covered. In German.

PB L 74711. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Index cards of chemical products. (FIAT Microfilm Reel M 135, Frames 8473-9999 and 1-669) 1933-1942. 1088 f. Price: Microfilm-$6.00 - Enlargement print-$109.00
This FIAT microfilm reel contains index cards dealing with dyes, plastics, soaps, pharmaceutical preparations, etc. Trade names of the products, chemical names and structural formulas are stated on most cards; occasionally also production method, uses and bibliographical references are given. The years 1933-1942 are covered. In German.

PB L 74773. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Index cards of chemical products. (FIAT Microfilm Reel M 137, Frames 2853-5150) 1932-1941. 1149 f. Price: Microfilm-$6.00 - Enlargement print-$115.00
This FIAT microfilm reel contains index cards pertaining to dyes, fats, oils, textile aids, and other synthetic organic chemicals. The cards state trade name of the products as well as chemical origin, composition and formula. Also method of production and reference to literature are given occasionally. The years 1932-1941 are covered. In German.

PB L 74716. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Laboratory reports on various organic products. (FIAT Microfilm Reel M 109, Frames 1773-2082) 1938-1942. 310 f. Price: Microfilm-$4.00 - Enlargement print-$31.00
This FIAT microfilm reel contains items dealing with the preparation and testing of organic dyes and printing oils. Most of the material is illegible or hard to read. In German.

PB L 70059. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Reports on the production of organic chemicals. (FIAT Microfilm Reel G 16, Frames 9212-9331g) 1942-1946. 126 f. Price: Microfilm-$2.25 - Enlargement print-$13.00
This FIAT microfilm reel consists of 32 reports on the production of textile aids and related substances. Individual items, listed below, will be available as enlargement prints. Please include PB and frame numbers when ordering an individual report. These reports are in German.

Frames	Title	Price
9212 PB L 70059	Dihydro - abietinol. By Stichnoth. 1946. In German.	$1.50
9213 PB L 70059	"Rukanoltop J" paste. By Zohner and Baumler. 1946. In German.	1.50
9214 PB L 70059	"Ramasit WDS" doubly concentrated 10. By Zohner and Muller. 1945. In German.	1.50
9215-9216 PB L 70059	"Ramasit KT" = "KGT concentrated." By Schowelter. 1942. In German.	1.50
9217 PB L 70059	"Cyclanon OA." By Verich. 1946. In German.	1.50
9218 PB L 70059	"Amphoseife 18." By Verich. 1946. In German.	1.50
9219 PB L 70059	Lorolsulfonate dry. By Ulrich. 1946. In German.	1.50
9220 PB L 70059	"Divulson W extra." Author's name illegible. 1946. In German.	1.50
9221 PB L 70059	"Leonil S" dry. By Ulrich. 1946. In German.	1.50
9222 PB L 70059	Binding agent "Rukanol AW." By Ulrich. 1946. In German.	1.50
9223 PB L 70059	Butyldiethanolamine - butylsulfuric acid. By Stanger. 1946. In German.	1.50
9224 PB L 70059	"Divulson D." By Ulrich. 1946. In German.	1.50
9225 PB L 70059	"Divulson A." Author's name illegible. 1946. In German.	1.50
9226 PB L 70059	"Ludoxit extra." By Ulrich. 1946. In German.	1.50
9227 PB L 70059	"Nekal A" dry. By Ulrich. 1946. In German.	1.50
9228 PB L 70059	"Nekal BX extra" dry. By Ulrich. 1946. In German.	1.50
9229 PB L 70059	Olaylsulfonate dry, and dry concentrated. By Ulrich. 1946. In German.	1.50
9230 PB L 70059	"Dermipol B." By Ulrich. 1946. In German.	1.50
9231-9232 PB L 70059	"Kalunit A" 100% solution and high-volume powder. By Ulrich. 1946. In German.	1.50
9233 PB L 70059	"Cyclanon WWL"viscous. By Ulrich. 1946. In German.	1.50
9234 PB L 70059	Octadecylene crude and pure. By Ulrich. 1946. In German.	1.50
9235 PB L 70059	"Nekal BXG new" dry. By Ulrich. 1946. In German.	1.50
9236-9246 PB L 70059	Styrene factory, Part I: Ethylbenzene plant. By Ohlinger. 1945. In German.	1.50
9247-9256 PB L 70059	"Koresin." By Christ. 1945. In German.	1.50
9257-9278 PB L 70059	"Acropal" and "Polystyrol N" products. By Holscher. 1945. In German.	2.50
9279-9287 PB L 70059	"Igelit MP." 1945. Author's name illegible. In German.	1.50
9288-9292 PB L 70059	"Palamoll I." By Rolker. 1945. In German.	1.50
9293-9300 PB L 70059	Vinylcarbazole and "Luvican." By Christ. 1945. In German.	1.50
9301-9308 PB L 70059	"Igevin" products. By Holscher. 1945. In German.	1.50
9309-9316 PB L 70059	"Igelit PCU." By Hambach. 1945. In German.	1.50
9317-9326 PB L 70059	Styrene factory, Part II: Dehydrogenation of ethylbenzene. By Ohlinger. 1945. In German.	1.50
9327-9331G PB L 70059	Styrene factory, Part III: Styrene distillation. By Ohlinger. 1945. In German.	1.50

PB L 70059-S. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Reports on the production of organic chemicals. (FIAT Microfilm Reel G-16, Frames 9212-93310, abstract cards) 1942-1946. 34 p. Price: Microfilm-$1.00 Photostat-$2.00.
These are abstracts, mostly by FIAT abstracters in Germany, of the items in reel G-16 (PB 70059) listed above. In English.

PB L 17674. I. G. FARBENINDUSTRIE A. G., LUDWIGSHAFEN, GERMANY. Reppe files - patent registration, main laboratory, Ludwigshafen. (FIAT Microfilm Reel C-77 (TOM 158), Frames 1304-2329) 1938-1944. 1085 f. Price: Microfilm-$6.00 - Enlargement print-$108.50.
Individual items are listed below and will be available as enlargement prints only. The entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German. Many frames of this reel are either illegible or hardly legible.

PB Numbers Frames	Title	Price
L 66232 Frames 1304-1347	Preparation of butadiene and its homologues. In German. Several frames are illegible.	$ 3.00
L 66233 Frames 1348-1478	Preparation of dicarboxylic acids and their salts. In German.	9.00
L 66234 Frames 1479-1517	Process for preparing N-vinyl-compounds. In German.	3.00
L 66235 Frames 1518-1571	Process for preparing compounds, containing in the ring nitrogen. In German. Frames 1538-1539, 1545 and 1556 are illegible.	4.00
L 66236 Frames 1572-1631	Process for preparing condensation products. In German. Frames 1575, 1588, and 1612 are illegible.	4.00
L 66237 Frames 1632-1705	Process for preparing condensation products. In German. Frames 1692, 1693 and 1695 are illegible.	5.00
L 66238 Frames 1706-1725	Emulsion polymerization. In German. Frame 1713 is illegible.	2.00
L 66239 Frames 1726-1858	Plasticizers. In German. Several frames are illegible or duplicates.	9.00
L 66240 Frames 1859-1897	Process for preparing N-vinyl-compounds. In German. Several frames are illegible or duplicates.	2.00
L 66241 Frames 1898-1939	Process for preparing polymeric vinyl compounds. In German. Several frames are illegible or duplicates.	3.00
L 66242 Frames 1940-1966	Water soluble with surface action sulfonic acids. In German.	2.00
L 66243 Frames 1967-2014	Preparation of 1-hydroxy-2-chloro-2-propene. In German. Several frames are illegible.	3.00
L 66244 Frames 2015-2050	Process for preparing mixed phthalic acid esters. In German. Several frames are illegible.	3.00
L-66245 Frames 2051-2089	Preparation of alcohols of the acetylene series. In German.	3.00
L 66246 Frames 2090-2131	Process for preparing soluble synthetic resins. In German.	3.00
L 66247 Frames 2132-2224	Process for preparing films from polyamides. In German.	7.00
L 66248 Frames 2225-2254	Process for preparation of superpolyamides. In German.	2.00
L 66249 Frames 2255-2329	Preparation of alcohols of the acetylene series. In German. Several frames are illegible or duplicates.	5.00
L 66731	Patent applications of the main laboratory filed with Dr. Reppe. (Index)	1.00

PB L 85411, PB L 86538 - PB L 86540. KAGAKU HYŌRON-SHA, OSAKA, JAPAN. Chemical review. v. 7-9, 1941-1943; v. 10, Nos. 1-4, 7-10, 1944.

PB No.	Vol.	Nos.	Date	Pages	Price: Microfilm	Photostat
L 85411	7	1-12	1941	630	$7.00	$64.00
L 86538	8	1-12	1942	679	7.00	68.00
L 86539	9	1-12	1943	546	7.00	55.00
L 86540	10	1-4; 7-10	1944	313	7.00	32.00

These documents are bound or unbound volumes, each containing a year's issues of a Japanese technical journal on current chemical research. The Kagaku Hyōron is compiled and edited by the Department of Industrial Chemistry, Kyoto Imperial University, published in Osaka, printed in Japanese, and released at the rate of twelve issues per year (not necessarily each month). For volume 10, No. 5-6, Aug 1944 see PB L 59997.

PB L 81631. LOCKWOOD, WILLIAM H. Applications of diisocyanates. Supplemental report. (FIAT Final Rept 1301) Sep 1947. 14 p. Price: Mimeo-50¢
This report gives additional information on the applications of diisocyanates. The process of manufacture of the dimer of toluene diisocyanate is given. This dimer has certain application advantages over the monomer. Details are given for the application of Desmodur-Desmophen mixtures to textiles, leather, and paper. New plastic and adhesive compositions are reported. Lists of German personnel interviewed, targets visited and a bibliography are attached.

PB L 86541 - PB L 86544. NIPPON KAGAKKAI, TOKYO. Bulletin of the Chemical Society of Japan. v. 16-18, 1941-1943; v. 19, Nos. 1-7, 1944.

PB No.	Vol.	Nos.	Date	Pages	Price: Microfilm	Photostat
L 86541	16	1-12	1941	523	$7.00	$53.00
L 86542	17	1-12	1942	550	7.00	55.00
L 86543	18	1-12	1943	486	7.00	49.00
L 86544	19	1-7	1944	158	4.75	16.00

The Bulletin of the Chemical Society of Japan is a monthly publication printed in English, French, or German and contains papers on current chemical research communicated to the Society in these languages and translations or abstracts of papers published in Japanese. It is published in conjunction with the Japanese language Nippon Kagaku Gakkai-shi (Journal of the Chemical Society of Japan).

PB L 86545 - PB L 86548. NIPPON KAGAKKAI, TOKYO.
Journal of the Chemical Society of Japan. v. 62-64, 1941-1943; v. 65, Nos. 1-7, 1944.

PB No.	Vol.	Nos.	Date	Pages	Price: Microfilm	Photostat
L 86545	62	1-12	1941	1201	$7.00	$121.00
L 86546	63	1-12	1942	1802	7.00	181.00
L 86547	64	1-12	1943	1566	7.00	157.00
L 86548	65	1-7	1944	731	7.00	74.00

These documents are annual volumes of a Japanese technical journal on current chemical research, compiled and edited by the Faculty of Science, Imperial University of Tokyo. The Journal of the Chemical Society of Japan is published monthly in Japanese and contains the proceedings of the Chemical Society, original papers communicated to the Society, lectures, book reviews, and miscellaneous notes.

PB L 86525 - PB L 86528. RIKAGAKU KENKYŪSHŌ, TOKYO.
Bulletin of the Institute of Physical and Chemical Research. v. 20-23, Nos. as indicated below, 1941-1944.

PB No.	Vol.	Nos.	Date	Pages	Price: Microfilm	Photostat
L 86525	20	1-12	1941	1124	$7.00	$113.00
L 86526	21	2-6, 8-9, 11-12	1942	1115	7.00	112.00
L 86527	22	3, 11-12	1943	295	7.00	30.00
L 86528	23	1-5	1944	324	7.00	33.00

This material represents research papers on current developments in physics, chemistry, and physical chemistry. The Japanese language publication "Rikagaku Kenkyūshō Ihō" is issued monthly in Tokyo by the Institute of Physical and Chemical Research. For other issues in vol. 21, see PB L 59076-PB L 59078. For other issues in vol. 22, see PB L 59079-PB L 59086.

* PB L 81830. U. S. FIELD INFORMATION AGENCY, TECHNICAL. Water-repellent for rayon staple fiber. (Tech Bulletin T-44) May 1947. 2 p. Price: Mimeo-25¢
The information presented gives a fairly complete description of the preparation. The product is the octadecyl ether of tetra-methylol acetylene urea and provides shrink-resistance as well as water-repellency. It is known only by its number, Lu 3/158a.

* PB L 85688. WELDON, P. E. and others. Avoidance of toxic hazards in some German chemical factories. (BIOS Final Rept 1122, Item 22, 24) n. d. 70 p. Price: Microfilm-$2.50 - Photostat-$7.00
The investigation was confined to a small number of processes, most of which are of special interest to Australian chemical manufacture. Twelve companies were investigated. The plant at the targets visited, on first appearances, seemed to contain little in the way of special provisions for the avoidance of toxic hazards, but in almost every case where the plant was found to be in operation, one could hardly fail to be impressed with the freedom from leaks in the plant units, mountings, pipes and pipe fittings, even though the lack of natural lighting shows the plant at its worst. The medical records were missing from most of the targets and, in consequence, it was difficult to judge whether the precautions taken by the firms had proved adequate. Copies of 4 health forms and 8 drawings are attached to the report.

* PB L 85589. YOUNG, H. E. B. and others. Methyl cellulose production at Kalle and Co., Wiesbaden-Biebrich. (BIOS Final Rept 1522, Item 22) Mar 1947. 86 p. Price: Microfilm-$3.00 - Photostat-$9.00
The production of cellulose ethers at Kalle & Co. has been described previously in the following reports: BIOS Final Rept 185; BIOS Final Rept 364 (PB 25666, v. 2, p. 470); BIOS Final Rept 547 (PB 32569, v. 3, p. 10); FIAT Final Rept 486 (PB 14527, v. 1, p. 828). The present report deals solely with the production of methyl cellulose, in all the modifications manufactured by Kalle, in greater detail than presented previously. The information presented gives an accurate survey of the manufacturing procedure employed. The stages in the manufacture can be conveniently classified as: (a) the production of alkali cellulose, (b) etherification, and (c) purification. In the report is given data on allocation of labor, analysis of products, costs, yields, etc., application and uses. The Appendix contains description of major plant items and building, building layout, diagrams, translation of preparation of Tylose PZ 100 and graphs.

ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES

Electronics

PB L 28770. BAKANOWSKI, A. E. and others. Airborne radio control - results of engineering tests of R-64/ARW-17 equipment. (Naval Res Lab Rept 2548) Jun 1945. 35 p. Price: Microfilm-$1.00 - Photostat-$3.00

* PB L 81825-R. HEIL, OTTO VON. The navigational beam system "Elektra-Sonne." (FIAT Final Rept 1105). Jun 1947. 174 p. Price: Mimeo-$4.50
This report covers the theory and design of different navigation systems, based on the interference principle. The "Elektra-Sonne" was found the most favorable of these systems. It utilizes a rotating pattern of guide beams with side markings. The construction, qualities, and installation of the "Elektra-Sonne" system are described in detail. A great number of diagrams, tables and illustrations are included. The first chapter giving a good survey of the subject has been translated into English, the remaining four chapters are in German.

* PB L 85591. MOODY, D. and others. Test gear for frequency modulation and television. (BIOS Final Rept 1269, Item 7) Jun-Jul 1946. 32 p. Price: Microfilm-$1.75 - Photostat-$4.00
This report summarizes the information gained on German test gear for frequency modulation and television. Ten targets were investigated and an individual report given for each plant. Six diagrams are included.

PB L 86389. STOKER, WARREN C. and SEIFERT, WILLIAM W. Shielding for diathermy. Final report. Oct 1943. 99 p. Price: Microfilm-$3.25 - Photostat-$10.00
This is a final report on Contract No. OEM sr-225-Project C-31 between the Communications Division, National Defense Research Committee of the Office of Scientific Research and Development and Rensselaer Polytechnic Institute. This report deals with the problem of preventing interfering radiation from radio frequency power equipment used for non-communication purposes. The general factors affecting the coordination of electrical facilities, namely, the influence factor, the coupling factor and the susceptibility factor are shown to apply to this problem. Means for controlling the first and third factors are briefly discussed. It is shown that balanced operation of the r.f. power source and the r.f. power circuits results in very worthwhile reductions in the interference field (10 to 1). The major portion of the report is concerned with the coupling factor. This factor is shown to be very effectively reduced by the use of shielded rooms, provided all other possible forms of coupling, such as 60 cycle power circuits, etc., are

Electronics (contd)
adequately and correctly filtered. The results of tests on fourteen different shielded rooms are presented, showing the effect on the shielding action (attenuation) of the following factors: (1) screening material, (2) screening mesh, (3) size and shape of room. These results pertain to single shields and the measurements cover the frequency range 10 mc. to 50 mc. Double coupled shields were constructed and the attenuation values under various conditions are reported. A new type of shielded room construction is described which has many favorable points. It is called the "cell type" or "parallel" shield. The attenuation for cell type shielded rooms with various wall spacings is given over the frequency range 10 mc. to 50 mc. General constructional features are considered and drawings are included which show the essential features. The necessity for filtering low frequency power circuits is discussed and methods for constructing and mounting effective line filters are described. The use of shielded transformers for the same purpose is considered. It is shown that special problems are encountered in the filtering of double coupled cages and a suitable arrangement is presented. The three shielded room types: single, double coupled and cell type (parallel), are compared on a basis of cost, attenuation and attenuation per dollar cost. It is shown that the cell type construction is the most economical, although the double shield is capable of higher attenuation. As a result of the investigation, it is concluded that comparatively cheap, semi-portable shielded rooms can be made and equipped with effective filters to produce attenuations ranging from 73 db for a single shield, to 140 db for a double shield. This corresponds to reductions in field intensity of from 4000/1 to 10,000,000/1 respectively. Such values can be obtained without difficulty if the filtering unit as described is employed, the screens themselves offering no difficulties.

PB L 28771. WHITE, CHARLES F. Mechanical oscillator with synchro output. (Naval Res Lab Rept 2582) Jul 1945. 20 p. Price: Microfilm-$1.00 - Photostat-$2.00

Generators, Motors, Transmission, Distribution and Allied Equipment

PB L 74017. MINISTERIAL DOCUMENTS BRANCH, BERLIN. Correspondence of various firms in the field of power generation. (FIAT Microfilm Reel B 227, Frames 8457-9383) 1943-1944. 927 f. Price: Microfilm-$6.00 - Enlargement print-$93.00
This reel, prepared by FIAT investigators in Germany, contains memoranda of no technical value, traveling expense accounts, lists of equipment, deferment requests for factory workers, applications for traveling permits, and internal plant reports on assembling or dismantling transformers or transmission lines, and cost estimates for the construction of hydraulic power plants on the rivers Iller and Alz. In German.

PB L 74042. MINISTERIAL DOCUMENTS BRANCH, BERLIN. Power supply in Germany. (FIAT Microfilm Reel B 222, Frames 7484-8456) 1936-1943. 973 f. Price: Microfilm-$6.00 - Enlargement print-$97.50
This reel prepared by FIAT investigators in Germany consists of reports, correspondence and notes. Individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
7484-7530 PB L 74042	DC high-voltage tests in general and within the "Badenwerk" system. 1941. In German.	$5.00
7531-7790 PB L 74042	DC high-voltage power plant of "Elbe-Berlin." 1941-1942. In German.	26.00
7791-7797 PB L 74042	Electrical energy economics of Western Germany. By A. Koepchen. 1938. In German.	1.50
7798-7924 PB L 74042	Power plant planning, energy distribution and consumption in Germany. 1941-1943. In German.	13.00
7925-8349 PB L 74042	Regulating and controlling methods for electrical systems operation in Germany. Correspondence, contracts, bibliography and articles. By H. Cramer. 1939-1942. In German.	42.50
8350-8456 PB L 74042	DIN standards for any power lines of public power systems, particularly with regard to the supply of city gas. 1937-1941. In German.	11.00

PB L 74039. MINISTERIAL DOCUMENTS BRANCH, BERLIN. Wind power plants. (FIAT Microfilm Reel B 217, Frames 2612-3584) 1934-1938. 973 f. Price: Microfilm-$6.00 - Enlargement print-$97.50
This FIAT reel contains the correspondence of two mechanical engineers, Honnef and Teubert with various firms, ministries and party offices. Among others, are reports and notes by Honnef on the construction of wind power units in connection with the economy drive in Germany. Many technical statements of the "Windkraftwerk Teubert G.m.b.H." deal with the installation of the wind power plant "Gosener Berg" near Berlin as well as with wind tunnel tests and model experiments. Drawings and tables of data are included. In German.

PB L 30869. YOUNG, R. B. Accessory power plant, Army Air Forces Type D-2. (AAF Materiel Command Memo Rept EXP-M-54-656-5744) Oct 1942. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

FUELS AND LUBRICANTS

PB L 20854. I. G. FARBENINDUSTRIE A. G. Reports and documents on processing of coal, coal byproducts, and oil. (FIAT Microfilm Reel LF 135 (TCM 205), Frames 1-1020) n. d. 1020 f. Price: Microfilm-$6.00 - Enlargement print-$102.00
Individual items of this FIAT microfilm reel are listed below. They will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please give PB and frame numbers when ordering individual items from this microfilm reel. In German.

PB Numbers Frames	Title	Price
Group I. Production of solid coke and fuel oil and combined hydrogenation-low-temperature-carbonization process.		
L 64744 Frames 1-19	Production of phenols from oils. In German.	$ 2.00
L 64745 Frames 20-74	Production of a briquetting agent from slightly hydrogenated coal or by working up of hydrogenation residue with particular regard to the combination of hydrogenation and low temperature carbonization. In German.	4.00
L 64746 Frames 75-97	"Hykoks" process. Technical briquetting and low temperature carbonization experiments with	

Upper Silesian coal, hydrogenation residues and partially hydrogenated coal. In German. 2.00

L 64747
Frames
98-132

"Bykoks" process. Technical experiments for the production of low temperature carbonization coke ("Bykoks") from coal with an insufficient baking capacity in combination with hydrogenation products (hydrogenation residues and slightly hydrogenated coal), by means of briquetting and low temperature carbonization of the briquettes. - Gasification of the low temperature carbonization coke. In German. 3.00

L 64748
Frames
133-157

Production of solid coke by means of low temperature carbonization of briquettes from poorly baking coal with addition of hydrogenation pitch or hydrogenation residues. In German. 2.00

L 86441
Frames
158-165

Investigation on the behavior of the briquettes when subjected to low temperature carbonization, in a moved state and in a non-moved state. Method for determining the resistance of the briquettes to partial carbonization. In German. 2.00

L 64749
Frames
164-188

Production of solid coke and heating oil by low temperature carbonization of briquettes from poorly baking coal with addition of partially hydrogenated coal or hydrogenation residues. In German. 2.00

Frames 189-194 are duplicates of frames 158-163.

L 64750
Frames
195-225

Production of solid coke by low temperature carbonization of briquettes from poorly baking coal with addition of hydrogenation pitch or hydrogenation residues. In German. 3.00

Frames 226-249 are duplicates of Frames 164-188. Frames 250-255 are duplicates of Frames 158-163.

L 64752
Frames
256-325

Low temperature carbonization of briquettes from mixtures of hydrogenation products (or bitumen) and coal, with simultaneous production of solid coke. In German. 6.00

L 64753
Frames
326-351

Combined short-hydrogenation-and-low-temperature-carbonization process. Large-scale experiment for briquetting lignite hydrogenation residue mixtures, subsequent low temperature carbonization of these briquettes, and gasification of the resulting low temperature carbonization coke. In German. 2.00

L 64754
Frames
352-365

Possibilities for the speedy realization of the Oil Plan by using the combined short-hydrogenation-low-temperature-carbonization and gasification process. In German. 2.00

L 64755
Frames
366-394

Combined hydrogenation-low-temperature-carbonization process. Short-hydrogenation experiments in stall 3 at Leuna. In German. 3.00

L 64756
Frames
395-428

Low temperature carbonization experiments with By-sludge residue mixed with coal. In German. 3.00

L 64757
Frames
429-472

Investigations aiming at increasing the tar yields by means of a combined hydrogenation-low-temperature-carbonization process. In German. 4.00

Group II. Reports on oil conference.

L 64758
Frames
473-489

Report on the first internal discussion of Branch I in Berlin, January 20, 1943. In German. 2.00

L 64759
Frames
490-538

Report on the oil conference in Leuna, December 22, 1937. In German. 4.00

L 64760
Frames
539-589

Report on the second oil conference in Berlin, December 17, 1936. In German. 4.00

L 64761
Frames
590-611

Report on the first oil conference in Ludwigshafen on February 20, 1936. In German. 2.00

Miscellaneous reports on carbonization and hydrogenation. Bähr reports.

L 64762
Frames
612-633

Calculations on the various low-temperature carbonization experiments. In German. 3.00

L 64763
Frames
634-659

Combined short-hydrogenation-low-temperature-carbonization process. In German. 3.00

L 64764
Frames
660-678

Production of low-temperature-carbonization briquettes from mixtures of coal with the addition of hydrogenation residues and sulfite waste liquor. In German. 2.00

L 63765
Frames
679-683

The use of solidifying point depressants in fuel oils. In German. 1.00

L 64766
Frames
684-688

Experiences at Leuna with sludge filtration. In German. 1.00

L 64767
Frames
689-718

Production of lubricants from hydrogenation products by cracking (at elevated temperature and pressures), and polymerization of the cracking products. In German. 2.00

Frames 715-718 illegible.

L 64768
Frames
719-725

Production of propylene and butylene from propane and butane respectively, by the chlorine process (Chlordehyd). In German. 1.00

Miscellaneous reports on gas phase catalysts.

L 64769
Frames
726-729

WS_2 in cracking at atmospheric pressure. In German. 1.00

L 64770
Frames
730-732

Further development of pure WS_2 to Ni activated and diluted catalysts. In German. 1.00

L 64771
Frames
733-734

The influence of temperature on the results of prehydrogenation with concentrated and diluted catalysts. In German. 1.00

L 64772
Frames
735-736

Production of 6434. In German. 1.00

L 64773
Frame
737

Adsorption of hydrogen on tungsten sulfide. In German. 1.00

L 64774 Frames 738-754 — Hydrogenation - cracking of paraffine over tungsten sulfide: experiments in autoclaves. In German. 2.00

L 64775 Frame 755 — The cracking efficiency of various catalysts. In German. 1.00

L 64776 Frames 756-758 — Development of catalysts. In German. 1.00

L 64777 Frames 759-767 — Lecture held in Frankfurt. WS_2 in cracking at atmospheric pressure. In German. 1.00

L 64778 Frame 768 — Cracking and isomerization of iso-octane and normal-octane over cat. 5056. In German. 1.00

L 64779 Frame 769 — Reactions without change of the C-skeleton. In German. 1.00

L 64780 Frames 770-774 — Hydrogenation, dehydrogenation and splitting of coronene over WS_2 (E.bomb experiment). In German. 1.00

L 64781 Frames 775-777 — Re problem: highly condensed aromatics, asphalts and catalysts (appendix: compounds containing N_2 and catalysts). In German. 1.00

L 64782 Frame 778 — WS_2 as a catalyst for the perhydrogenation of polynuclear aromatics. In German. 1.00

L 64783 Frame 779 — Comparing oxides with sulfides (experiments of 1935). In German. 1.00

L 64784 Frame 780 — Note on cracking normal-heptane and iso-octane over 5058 at 250 atm. In German. 1.00

L 64785 Frames 781-786 — Experiments on regulating the aromatics-naphthene equilibrium over tungsten sulfide catalyst 5058. In German. 1.00

L 64786 Frame 787 — Cracking of gas oil P 1203 over various catalysts. In German. 1.00

L 64787 Frames 788-791 — Benzination over 5058 at various temperatures. In German. 1.00

L 64788 Frames 792-799 — Experiment with catalyst 5058 at 100 atm performed on gascil up to 23 MV. In German. 1.00

L 64789 Frames 800-801 — Comparing the performances of 5058 at various stages of density of the catalyst. In German. 1.00

L 64790 Frames 802-804 — The influence of the "grain" - or "pill" size on the cracking action of 5058. In German. 1.00

L 64791 Frames 805-807 — The influence of the grain size of WS_2 catalysts in benzination. In German. 1.00

L 64792 Frames 808-810 — Effect of the grain size of a catalyst on the benzination. In German. 1.00

L 64793 Frame 811 — Tungsten sulfide as isomerization catalyst for butane. In German. 1.00

L 64794 Frame 812 — The catalytic isomerization of aliphatic hydrocarbons. In German. 1.00

L 64795 Frames 813-816 — Methylcyclopentane from benzene and cyclohexane respectively. In German. 1.00

L 64796 Frame 817 — Experiments on hydrogenation of crude naphthalene with 5060. In German. 1.00

L 64797 Frame 818 — Hydrogenation of benzene over 5058. In German. 1.00

L 64798 Frame 819 — Reduction of m-cresol over WS_2. In German. 1.00

L 64799 Frames 820-821 — Re lecture Frankfurt on WS_2 catalyst. In German. 1.00

L 64800 Frame 822 — Instruction for the reduction of catalysts in pilot apparatus. In German. 1.00

L 64801 Frame 823 — On adsorption of methylene blue on various catalysts or catalyst carriers. In German. 1.00

L 64802 Frames 824-848 — Some experiments on adsorption on and catalysis with K 5058. In German. 2.00

L 64803 Frames 849-859 — On adsorption of gases on catalyst carrier materials and on a hydrogenation catalyst. In German. 1.00

L 64804 Frame 860 — Examination of FeS-WS_2 catalysts by electron diffraction. In German. 1.00

L 64805 Frames 861-862 — Examination of WS_2 catalysts by electron diffraction. In German. 1.00

L 64806 Frames 863-871 — Use of molybdenum- and tungsten sulfide catalysts for pressure hydrogenation. In German. 1.00

L 86442 Frames 872-880 — The use of a sulfide produced via the sulfo salt as catalyst for pressure hydrogenation. In German. 2.00

L 64807 Frames 881-894 — Sulfidic gasphase-catalysts, particularly tungsten sulfide, in technical hydrogenation of coal. In German. 1.00
Frame 895 is missing on reel.

Miscellaneous papers on lubricants.
Lubricating oil.

L 64808 Frames 896-907 — Preparation of highly viscous lubricating oils. State of research in high-pressure experiments. In German. 1.00

L 64809 Frames 908-911 — Lubricating oils. In German. 1.00

L 64810 Frames 912-921 — Hydrogenation of crude oil paraffins for the synthesis of lubricating oils. In German. 1.00

L 64811 Frames 922-927 — Oxydation. Paraffin for production of lubricating oil and for oxidation. In German. 1.00

L 64812 Frames 928-929 — Abstract from K. L. Wolf's work on: "Molecular physics in lubrication." In German. 1.00

L 64813 Frame 930 — Physical theories of the lubricating process. In German. 1.00

Fuels and Lubricants (contd)

L 64814 Frames 931-932	Polymerization of chemically pure unsaturated hydrocarbons to products similar to lubricating oils. In German.	1.00
L 64815 Frames 933-934	Synthetic lubricating oils from pure hydrocarbons. In German.	1.00
L 64816 Frames 936-938	Relationship between the constitution of pure hydrocarbons and their lubricating properties. In German.	1.00
L 64817 Frames 939-942	Hugel's views on the temperature/viscosity curve of lubricating oils. In German.	1.00
L 64818 Frames 943-944	Lubricating oils prepared by molecular linkage of paraffin. In German.	1.00
L 64819 Frames 945-947	Concepts and definitions of the theory of lubrication. In German.	1.00
L 64820 Frames 948-955	Judging lubrication with the aid of testing machines. In German.	1.00
L 64821 Frames 956-957	High pressure lubricants. In German.	1.00
L 64822 Frames 958-970	Production of ethylene from Saar gas ethane by thermal cracking, and separation of ethylene by means of copper lye "Haeuber's method). In German.	2.00
L 64823 Frames 971-974	Literature survey on ethylene lubricating oil (except for confidential applications). In German.	1.00
L 64824 Frames 975-980	Description of, and data on, a plant to be constructed at Postlitz, for production of cold-resistant lubricating oil SS 900. In German.	1.00
L 64825 Frame 981	Introduction of sulfur into ester lubricating oils. In German.	1.00
L 64826 Frames 982-1000	Viscous-phase process for ash removal from coal. In German.	2.00
L 64827 Frames 1001-1020	Report on the state of research on removing ash from coal by the Höchst kneading process. In German.	2.00
L 64743	Reports and documents on processing of coal, coal byproducts, and oil. (Index.)	1.00

PB L 70212. RUHRCHEMIE A. G., OBERHAUSEN, GERMANY. Reports on fuel technology. (FIAT Microfilm Reel K-21, Frames 570-1169) 1937-1943. 599 f. Price: Microfilm-$6.00 - Enlargement print-$60.00

This FIAT microfilm reel contains 100 reports on the synthesis of gasoline and related products, particularly on the catalysts used in these processes. Individual items, listed below, will be available as enlargement prints. Most frames of this reel carry a preliminary number in addition to the final frame number. Preliminary numbers are given in parentheses here. When ordering an individual report, please give PB number, frame numbers, and preliminary numbers as well, in order to prevent errors. These reports are all in German.

Frames	Title	Price
570-574 (560-564) PB L 70212	The effect of oxygen in the refining process in gasoline production. By Seifert. 1937. In German.	$1.50
575-576 (565-566) PB L 70212	Desulfurization of synthesis gases. By Roelen and Kalk. 1937. In German.	1.50
577-582 (567-572) PB L 70212	Kuhlmann's substance for refining. By Roelen. 1937. In German.	1.50
583-585 (573-575) PB L 70212	Proceedings of the Ruhrbenzin plant conference. By Martin and others. 1937. In German.	1.50
586-588 (576-578) PB L 70212	The effect of the purity of the gas on the gas reaction. Signature illegible. 1937. In German.	1.50
589-591 (579-581) PB L 70212	The effect of the refining substance on the composition of the synthesis gas. Signature illegible. 1937. In German.	1.50
592-594 (582-584) PB L 70212	These frames are missing.	
595-605 (585-595) PB L 70212	The "Lux" substance in the Fischer gasoline process. By Frans and others. 1937. In German. Part of this report is illegible.	1.50
606-607 (596-597) PB L 70212	Low temperature separation of oil-aldehyde-mixtures containing cobalt and iron. By Landgraf. 1940. In German.	1.50
608-609 (598-599) PB L 70212	Cracked oil for alcohol synthesis. By Landgraf. 1940. In German.	1.50
610-613 (600-603) PB L 70212	Amendment of the directions for synthesizing aldehydes by means of suspended catalyst. By Roelen. 1940. In German.	1.50
614-620 (604-610) PB L 70212	Oxo synthesis. By Roelen. 1940. In German.	1.50
621-631 (611-621) PB L 70212	Ruhrchemie's alcohols and fatty acids. By Mannes. 1940. In German.	1.50
632-634 (622-624) PB L 70212	These frames are missing.	
635 (625) PB L 70212	The present state of the methanol experiments. By Roelen. 1943. In German.	1.50
636-642 (626-632) PB L 70212	The synthesis of aldehydes and other compounds containing oxygen, starting with carbon monoxide and hydrogen. By Roelen. 1940. In German.	1.50
643-644 (633-634) PB L 70212	Aliphatic alcohols. By Roelen. 1940. In German.	1.50
645-646 (635-636) PB L 70212	Aldehyde synthesis. By Roelen. 1940. In German.	1.50
647-648 (637-638) PB L 70212	These frames are a duplication of the preceding item.	
649-654 (639-644) PB L 70212	Utilization of the oxo reaction. By Ambros. 1940. In German.	1.50

655-661 (645-651) PB L 70212 — Oxo synthesis. By Roelen. 1940. In German. 1.50

662-663 (652-653) PB L 70212 — Ruhrchemie's alcohols and fatty acids. 1940. In German. 1.50

664-666 (654-656) PB L 70212 — Physical constants and boiling behavior of an alcohol-hydrocarbon mixture C_nH_{2n+2}. 1940. In German. 1.50

667-673 (657 and 658 and frames without preliminary nos.) PB L 70212 — Ruhrchemie's alcohols and fatty acids. 1940. In German. 1.50

674-676 (659-661) PB L 70212 — Addition of water gas to gas oils. By Roelen. 1939. In German. 1.50

677-680 (662-665) PB L 70212 — Conference on a continuous toluene process. By Roelen. 1939. In German. 1.50

681-683 (666-668) PB L 70212 — Reduction of metal oxide catalysts. By Roelen. 1941. In German. 1.50

684-691 (669-676) PB L 70212 — The effect of reduction, and of the type of Kieselguhr, on the catalytic efficiency (Bauxel method). 1938. In German. 1.50

692-698 (677-682) PB L 70212 — Separation of carbon dioxide from reduction hydrogen. By v. Asboth and others. 1938. In German. 1.50

699-701 (683-685) PB L 70212 — Reducibility of cobalt catalysts depending on the proportion of Kieselguhr. By Schenk and Roelen. 1938. In German. 1.50

702 (686) PB L 70212 — Insignificant letter. In German. 1.50

703 (687) PB L 70212 — The carbon dioxide content of thorium and magnesium catalysts. By Schenk and Roelen. 1938. In German. 1.50

704 (688) PB L 70212 — Duplication of preceding item.

705-707 (689-691) PB L 70212 — Thorium-magnesium thread-grain reduced in continuous process. By Schenk and Roelen. 1938. In German. 1.50

708-724 (692-707) PB L 70212 — Reduction furnaces. By Sauter and Roelen. 1937. In German. 2.00

725 (708) PB L 70212 — [Incomplete] Reduction [of metal catalyst]. By Roelen. 1937. In German. 1.50

726-727 (709-710) PB L 70212 — Further oxidation of catalysts. Signature illegible. 1937. In German. 1.50

728-737 (711-720) PB L 70212 — Reduction of cobalt catalysts under lowered pressure. By Rummel. 1937. In German. 1.50

738-742 (721-725) PB L 70212 — Micro-determination of nitric oxide in the reduction process. Signature illegible. 1937. In German. 1.50

743-749 (726-731) PB L 70212 — Micro-determination of gases in the reduction process. Signature illegible. 1937. In German. 1.50

750-750B PB L 70212 — Plant report on reduction. Signature illegible. 1937. In German. 1.50

751-752 (732-733) PB L 70212 — Soaking experiments. Signature illegible. 1937. In German. 1.50

753-765 (734-746) PB L 70212 — Catalyst reduction experiments. By Scheuff and Roelen. 1937. In German. 1.50

766-771 (747-752) PB L 70212 — Hardness of the catalyst grain. Signature illegible. 1937. In German. 1.50

772-775 (753-756) PB L 70212 — This is a duplication of part of the report on Frames 753-765, above.

776-778 (757-759) PB L 70212 — Reduction. By Roelen. 1937. In German. 1.50

779-785 (760-766) PB L 70212 — Continuous reduction in a transverse flow shaft furnace. By Roelen. 1937. In German. 1.50

786-791 (767-772) PB L 70212 — Catalyst reduction. Signature illegible. 1937. In German. 1.50

792-801 (773-782) PB L 70212 — Reduction with hydrogen containing a foreign gas. By Roelen. 1937. In German. 1.50

802 (783) PB L 70212 — Reduction. By Roelen. 1937. In German. 1.50

803-805 (784-786) PB L 70212 — Reduction with hydrogen containing a foreign gas. By Roelen. 1937. In German. 1.50

806-892 (787-834) PB L 70212 — Recovery of thorium. Various authors. 1937-1942. In German. 9.00

893-898 (835-838) PB L 70212 — Production of catalysts for the synthesis. By Voss. n. d. In German. 1.50
Patent application V 40188 IVc/12o.

899-900 (839-840) PB L 70212 — Iron catalysts. By Roelen and Schenk. 1944. In German. 1.50

901 (841) PB L 70212 — Manometric determination of free iron in reduced catalysts. 1944. In German. 1.50

902-903 (842-843) PB L 70212 — These frames are missing.

904-905 (844-845) PB L 70212 — Alkalization of iron catalysts. By Roelen. 1942. In German. 1.50

906-908 (846-848) PB L 70212 — Cobalt catalysts containing nickel. By Roelen. 1941. In German. 1.50

909-910 (849-850) PB L 70212 — Medium pressure synthesis. By Schenk. n. d. In German. 1.50
This report is incomplete.

911-913 (851-853) PB L 70212 — Compressed cobalt catalysts. By Schenk. 1941. In German. 1.50

914-917 (854-857) PB L 70212 — The use of nickel catalysts and mixed nickel-cobalt catalysts for gasoline synthesis. By Roelen. 1941. In German. 1.50

918-922 (858-862) PB L 70212	Paraffin synthesis by means of an iron catalyst. Signature illegible. 1941. In German.	1.50
923-925 (863-865) PB L 70212	Catalyst hardness. By Martin and others. 1939. In German.	1.50
926-927 (866-867) PB L 70212	Iron-calcium catalysis. By Roelen. 1939. In German.	1.50
928-929 (868-869) PB L 70212	Modification of the hardness of cobalt catalyst. By Roelen. 1939. In German.	1.50
930-931 (870-871) PB L 70212	Paraffin synthesis. By Landgraf. 1939. In German. This item appears again as part of item 997-1008, below.	1.50
932-933 (872-873) PB L 70212	Catalyst obtained by decomposition [of cobalt salt solutions]. Signature illegible. 1938. In German.	1.50
934-946C (874-886) PB L 70212	Determination of trivalent cobalt in cobalt catalysis. By Roelen. 1938. In German.	2.00
947-949 (887-889) PB L 70212	Subsequent treatment of finished grain. By Roelen. 1938. In German.	1.50
950-953 (890-893) PB L 70212	Magnesia samples for catalyst production. 1938. In German.	1.50
954-957 (894-897) PB L 70212	Compression catalysts. Signature illegible. 1939. In German.	1.50
958-961 PB L 70212	Improving grain hardness. Signature illegible. 1938. In German.	1.50
962 PB L 70212	Mixed thorium-magnesium catalysts. By Gehrke. 1938. In German.	1.50
963-964 (898-899) PB L 70212	Examination of exhausted catalysts. By Roelen. 1937. In German.	1.50
965-966 (900-901) PB L 70212	Production of catalysts containing magnesium. By Roelen. 1937. In German.	1.50
967-969 (902-904) PB L 70212	Results with cobalt catalysts containing nickel. By Roelen. 1937. In German.	1.50
970-975 (905-910) PB L 70212	This is a duplication of Frames 776-771, above.	
976-982 (911-916) PB L 70212	Proportions of cobalt, thorium and kieselguhr in the catalyst. Signature illegible. 1937. In German.	1.50
983-989 (917-923) PB L 70212	Control of preliminary precipitation by measuring the pH. Signature illegible. 1936. In German.	1.50
990-991 (924-925) PB L 70212	Diesel oil mixing experiments. By Lochmann. 1938. In German.	1.50
992-995 (926-929) PB L 70212	Residue oil from ozonization. 1938. In German.	1.50
996 (930) PB L 70212	Flocculation and solidification points of "ECH" Diesel oil. Signature illegible. 1938. In German.	1.50
997-1008 (931-941) PB L 70212	Paraffin synthesis. By Roelen and Roden. 1939. In German.	1.50
1009-1018 (942-951) PB L 70212	Reduction of cobalt catalyst. By Roelen. 1937. In German.	1.50
1019-1021 (952-953) PB L 70212	This is a duplication of Frames 776-778, above.	
1022-1024 (954-956) PB L 70212	Experiments in a small reduction apparatus. By Roelen. 1937. In German.	1.50
1025-1026 (957-958) PB L 70212	Reduction at reduced pressure. By Roelen. 1937. In German.	1.50
1027-1031 (959-963) PB L 70212	Technical problems in catalyst production. Signature illegible. 1938. In German.	1.50
1032-1040 (964-971) PB L 70212	This is a duplication of Frames 684-691, above.	
1041-1061 (972-993) PB L 70212	Kieselguhrs. By Roelen and others. 1938. In German.	2.50
1062-1063 (994-995) PB L 70212	Calcining drum for kieselguhr. 1937. In German.	1.50
1064-1075 (996-1007) PB L 70212	Tests of kieselguhr samples. Signature illegible. 1937. In German.	1.50
1076-1092 (1008-1022) PB L 70212	Diesel and fuel oil from lignite tar oils. Signature illegible. 1938. In German.	2.00
1093-1097 (1023-1027) PB L 70212	Method to obtain chiefly paraffin in the hydrogenation of carbon monoxide. 1940. In German.	1.50
1098-1107A (1028-1038) PB L 70212	The development of cobalt catalysts. n. d. In German.	2.50
1108-1115 (1039-1046) 1121A-1122 (1053-1054) PB L 70212	Wet synthesis. By Schenk. 1942. In German.	1.50
1116-1118 (1047-1049) PB L 70212	Duplication of Frames 911-913, above.	
1119-1121 (1050-1052) PB L 70212	Cobalt-nickel catalysts. By Schenk. 1941. In German.	1.50
1123-1129 (1055-1061) PB L 70212	Paraffin synthesis by means of an iron catalyst. 1941. In German.	1.50
1130-1139 (1062-1070) PB L 70212	Production of coal gas from waste gas of a [gasoline] synthesis with iron [catalyst]. By Roelen. 1941. In German.	1.50
1140-1146 (1071-1077) PB L 70212	Oxosynthesis, particularly for producing propyl aldehyde. By Roelen. 1941-1942. In German.	1.50
1147-1149 (1078-1080) PB L 70212	Iron catalyst Schwarzheide. By Alberts. 1941. In German.	1.50
1150-1153 (1081-1084) PB L 70212	Iron catalysts for hydrocarbon synthesis. By Roelen. 1943. In German.	1.50
1154-1169 (1085-1096) PB L 70212	Improvements in the operation of a Fischer-Tropsch gasoline gasoline plant. By Loepmann and Feist. 1942-1943. In German.	2.50

PB L 70212-S. RUHRCHEMIE A. G., OBERHAUSEN, GERMANY. Reports on fuel technology. (FIAT Microfilm Reel K-21, Frames 570-1169, abstract cards) 1937-1943. 102 p. Price: Microfilm-$3.00 - Photostat-$7.00
These are short abstracts of the items on reel K-21 (PB L 70212), listed above. They were prepared by FIAT abstracters in Germany. In English.

MACHINERY (EXCEPT ELECTRICAL)

PB L 74614. BOSCH, ROBERT, G.M.B.H., STUTTGART, GERMANY Test reports on engines and fuel feed systems. (FIAT Microfilm Reel K-253, Frames 3933-4717). 1940-1945. 785f. Price: Microfilm-$6.00 - Enlargement Print-$78.50
This reel was prepared by FIAT investigators in Germany. 43 individual items are listed below and will be available as enlargement prints. The entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
3933-3963 PB L 74614	Investigating the feeding capacity of gear pumps with normal and widened clearance. 1942. In German.	$3.50
3964-3980 PB L 74614	Worm piston pump based on the "Lutz" principle. 1942. In German.	2.00
3981-3992 PB L 74614	Regulation of light oil injection pumps by suction throttling. 1942. In German.	1.50
3993-4073 PB L 74614	Electric heating of injection pumps with regulator. 1942. In German.	8.50
4074-4093 PB L 74614	Two-way distributing pump (rotating and lifting movement of the piston). 1942. In German.	2.00
4094-4183 PB L 74614	Investigating injection pumps for vehicle type Otto engines with intake regulation and radially arranged pistons. 1942. In German.	9.00
4184-4192 PB L 74614	Relationship between charge, suction tube pressure, throttle flap position and RPM of a 4-cylinder "Hanomag" engine. 1941. In German.	1.50
4193-4200 PB L 74614	Investigation of a two-cylinder fuel pump. 1941. In German.	1.50
4201-4219 PB L 74614	Testing the atomization of jets at constant injection for known combustion processes. 1941. In German.	2.00
4220-4237 PB L 74614	Examination of two-fuel injection valves of various types. 1941. In German.	2.00
4238-4246 PB L 74614	Starting of "B-fuel" motors. 1941. In German.	1.50
4247-4264 PB L 74614	Otto engines with gasoline injection for vehicles. 1940. In German.	2.00
4265-4269 PB L 74614	Arrangement of fuel feed lines on a vehicle using viscous fuel. 1940. In German.	1.50
4270-4314 PB L 74614	Performance limitations of centrifugal air exhausters. 1940. In German.	4.50
4315-4344 PB L 74614	Investigating the injection characteristics of "Z-fuels" with various pump specifications and nozzle designs. 1940. In German.	3.00
4345-4369 PB L 74614	Testing the cold starting properties of light-oil injection pumps. 1940. In German.	2.50
4370-4384 PB L 74614	Supercharge pressure tester. 1944. In German.	1.50
4385-4389 PB L 74614	Sealing tests with various tight cover plates on an injection pump. 1944. In German.	1.50
4390-4400 PB L 74614	Supercharging tests with the 6 cylinder "Tatra" motor. 1944. In German.	1.50
4401-4422 PB L 74614	Roots blower manufactured by the "Aerzener Maschinen-Fabrik". 1944. In German.	2.50
4423-4440 PB L 74614	Development of a new testing method for air exhausters. 1944. In German.	2.00
4441-4455 PB L 74614	Investigating injection properties of a "Daimler" motor. 1944. In German.	1.50
4456-4470 PB L 74614	Injection pump for a turbo-jet power unit. 1944. In German.	1.50
4471-4476 PB L 74614	Injection device with mixture regulator. 1943. In German.	1.50
4477-4482 PB L 74614	Testing the spray direction of nozzles. 1943. In German.	1.50
4483-4485 PB L 74614	Cetane number-ring test. 1943. In German.	1.50
4486-4505 PB L 74614	Supercharge pressure tester with adjustable ring. 1943. In German.	2.00
4506-4510 PB L 74614	Coordinating action of a Diesel injection pump with divided suction and control chamber and viscid oil supply pump. 1943. In German.	1.50
4511-4520 PB L 74614	Testing the jet force by means of "Plastilin" (clay product). 1943. In German.	1.50
4521-4537 PB L 74614	Supercharger. 1943. In German.	2.00
4538-4548 PB L 74614	Comparing the capacities of various heavy oil fuel pumps. 1943. In German.	1.50
4549-4552 PB L 74614	Endurance test of a pump. 1944. In German.	1.50
4553-4568 PB L 74614	Injection pump for a turbo-jet power unit. 1944. In German.	2.00
4569-4573 PB L 74614	Injection device and nozzles for jet power units. 1943. In German.	1.50
4574-4580 PB L 74614	Injection pump for a special power unit. 1943. In German.	1.50
4581-4593 PB L 74614	Investigation of a hot-gas producer for an exhaust supercharger. 1942. In German.	1.50
4594-4601 PB L 74614	Hot gas producer based on the worm piston principle. 1942. In German.	1.50
4602-4611 PB L 74614	Jet power unit. 1944. In German.	1.50
4612-4620 PB L 74614	"Bosch" injection device for jet power units. 1943. In German.	1.50
4621-4667 PB L 74614	Development of turbo-jet power units. 1945. In German.	5.00
4668-4680 PB L 74614	State of development of various jet power units charged by an injection pump. 1944. In German.	1.50
4681-4693 PB L 74614	Turbo jet control. 1944. In German.	1.50

4694-4717 PB L 74614 Float air exhauster for an injection pump. 1942. In German. 2.50

*PB L 81086. JEFFS, R. H. and others. A further report on the German bolt and nut industry. (BIOS Final Rept 1452, Item 31). Jul 1947. 21 p. Price: Microfilm-$1.00 - Photostat-$2.00
An individual report is given for each of six factories investigated. The reports cover production, men employed, machines used, heat treatment, manufacturing methods and procedures. Appendix 2 contains an analysis of typical tool steels in tabulated form with a key index. Five illustrations are included.

*PB L 81085. KNIGHT, R. A. G. and DUFF, G. B. W. Ritter Maschinenfabrik, Hamburg. (Machines for plywood manufacture.) (BIOS Final Rept 1424, Item 22, 31; Interrogation Rept 510). Jul 1947. 8 p. Price: Microfilm-$1.00 - Photostat-$1.00
This report covers a visit to W. Ritter Maschinenfabrik in Hamburg and describes the following machines: Veneer slicers, peelers, spooling gear, clippers, mixers, glue spreaders, edgers, splicers, scarf cutters, and cross-cut saws for logs.

METALS AND METAL PRODUCTS

*PB L 85692. COOKSEY, J. C. German methods of production of aluminium coated and continuous electroplated steel strip. (BIOS Final Rept 1467, Item 21). Mar-Apr 1946. 18 p. Price: Microfilm-$1.25 - Photostat-$2.00
The Wickede Eisenund Stahlwerke G.m.b.H., Wickede, Ruhr, the Trierer Walzwerke, Trier (French zone), and the Trierer Walzwerke in Langerfeld-Wuppertal were visited for the purpose of ascertaining the German methods of manufacture of aluminum coated mild steel strips, and the firm Hille and Müller was visited to ascertain the German method of producing continuous electroplated mild steel strips. The process of manufacture is given in detail in this report together with nine illustrations.

PB L 86426. ESMARCH, WILLIAM and others. Degassing of light-metal alloys by means of sound vibrations. (NAVSHIPS Translation Series Rept 15) Oct 1940. 20 p. Price: Microfilm-$1.25 - Photostat-$2.00
This report from the Electrochemical Division of Siemens Halske A. G., Berlin, discusses the development of a simple method for degassification of aluminum alloys in a high frequency furnace by means of sonic vibrations. The experiments which were carried out with apparatus composed of parts readily available and with very moderate magnetic fields, indicated that complete degassification is possible even with alloys of high magnesium content. A bibliography is included.

*PB L 85607. LOCKWOOD, L. B. German hinge industry. (BIOS Final Rept 1518, Item 31). Jan-Feb 1947. 18 p. Price: Microfilm-$1.25 - Photostat-$2.00
Ten factories were visited with the object of investigating methods currently used for the production of hinges in Germany, and to compare German designs and developments in hinges and hinge making machinery with present English methods. A summary of the survey is given as well as individual reports on each firm.

*PB L 85590. MORROGH, H. German malleable iron foundries (with a note on Schenck fatigue machines). (BIOS Final Rept 1554, Item 21). Jan-May 1946. 82 p. Price: Microfilm-$3.00 - Photostat-$9.00
Seven plants were visited and a detailed report given on each plant. Production of raw castings, analysis of deliveries in and outside of Germany, analysis of deliveries to the Netherlands, Italy, Hungary, Denmark, France, Rumania, Belgium and Bulgaria are presented in tabulated form as well as analysis of export values and compensation. Seventeen photographs showing various furnaces are included.

*PB L 85690. PIKE, D. V. Application of aluminium and its alloys in Germany. (BIOS Final Rept 1423, Item 21). May-Jun 1946. 59 p. Price: Microfilm-$2.25-Photostat-$6.00
This document consists of fifteen individual reports on targets inspected in order to obtain data on application of aluminum and its alloys in Germany. The subjects covered in these reports are as follows: Structural units; Roofing; Windows; Gutters; Gates; Handrails; Vehicles; Furniture; Food containers; Brewery plants; Cable sheathing; Plumbing; and Welding. Included are also 27 illustrations showing various applications.

*PB L 81094. REYNOLDS, A. A. and others. The production in Germany of extruded sections and tubes in aluminium and magnesium alloys. (BIOS Final Rept 1366, Item 21). Mar 1946. 125 p. Price: Microfilm-$3.00 - Photostat-$9.00
This report covers an investigation of 14 plants situated in the British and American zone of Germany which specialize in the manufacture of extruded sections and tubes of aluminum and magnesium alloys. In addition, it refers to a visit to Dr. Ing. Kurt Lane at Wutöschingen, in the French zone, who is an expert on the hot working and cold drawing of non-ferrous metals, full details of which appear in the report. The report is presented under various sub-headings, each dealing with a particular process, or group of processes, in the fabrication of tubes or extrusions, and the appropriate information given is in the form of general impression of methods employed at some, or all, the targets visited. A number of drawings, tables, and sketches are included.

*PB L 81087. STROUD, F. A. and HEYWOOD, K. Cold impact extrusion of aluminium etc. (BIOS Final Rept 1409, Item 21). Jul 1947. 33 p. Price: Microfilm-$1.00-Photostat-$3.00
Nineteen factories were investigated for the purpose of acquiring knowledge of German practice in the technique of cold impact extrusion of aluminum, aluminum alloys and zinc; also of the type of presses used in this process. A detailed report is given for each factory. Punch and die drawings are included.

PHYSICS

General

PB L 86445. BERANEK, L. L. and others. The design and construction of anechoic sound chambers. (OSRD Rept 4190) Oct 1945. 110 p. Price: Microfilm-$3.50 - Photostat-$11.00
During World War II, the National Defense Research Committee sponsored a program of acoustical research at the Cruft Laboratory, Harvard University, dealing with many problems of acoustic transmission and the development of acoustical instruments. In order to perform the more complex of these problems as efficiently as possible, it was found necessary to construct acoustical chambers in which echoes were reduced to very low values (anechoic sound chambers). The first section of this report is a lengthy summary of the research program. Following the summary is a section devoted to a chronological review of the experiments which led to the development of the acoustical lining that was finally selected for the largest chamber. In section IV the behaviors of the finished chambers are compared with the behaviors of the more important chambers known to be in existence. Section V deals with the construction of the building in which the largest of the three chambers is housed, while section VI describes the methods of fabrication of the wedge lining. Finally, certain constructional features of the smaller chambers are discussed. Photographs, charts, graphs, sketches and tables are included.

RUBBER AND RUBBER PRODUCTS

PB L 19929. I.G. FARBENINDUSTRIE A.G. Reports at conferences of the Rubber Commission (Kautschuk Kommission), 1931, 1933, 1936-1939. (FIAT Microfilm Reel R 139, Frames 1-888). Mar 1946. 888f. Price: Microfilm-$6.00 - Enlargement Print-$89.00
Individual items of the FIAT microfilm reel are listed below. They will be available as enlargement prints only; the entire reel may be pruchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

PB Numbers Frames	Title	Price
L 67875 Frames 1-11	Conference on synthetic rubber on 27 March, 1936 in Frankfort. Report on rubber technique and estimation of "Duprene" from the point of view of rubber and polymerization technique. In German.	$1.00
L 67876 Frames 12-22	New methods of testing the malleability of rubber. In German.	1.00
L 67877 Frames 23-28	Processing and vulcanization of Buna. In German.	1.00
67878 Frames 29-38	The polymerization of butadiene with sodium. Developmental work on Buna 85 and 115. In German.	1.00
67879 Frames 39-43	Emulsion polymerization of butadiene with one or two additional polymerisable compounds. In German.	1.00
67880 Frames 44-46	Emulsion polymerization of chloroprene. In German.	1.00
67881 Frames 47-49	Polymerization of chloroprene. In German.	1.00
67882 Frames 50-54	Cyclization phenomena and stabilization in the manufacture of Buna N. In German.	1.00
67883 Frames 55-61	Meeting on synthetic rubber on March 27,1943 in Frankfort. Minutes. In German.	1.00
67884 Frames 62-63	Report on emulsion polymerization of Bunen. Acrylo nitrile in practice. In German.	1.00
67885 Frames 64-65	Production of butadiene from refinery gases. In German.	1.00
67886 Frames 66-77	Discussion on rubber on July 5, 1933 in Frankfurt. In German.	1.00
67887 Frames 78-100	Minutes of the session held in Frankfurt on Jul 9, 1931. Lecture on the latest technical progress in the field of synthetic rubber. In German.	2.00
67888 Frames 101-110	On synthetic rubber. In German.	1.00
67889 Frames 111-121	Discussion in Leverkusen on Dec. 1, 1933 concerning rubber. Developments since the last session. In German.	1.00
67890 Frames 122-148	Lecture by Dr. Konrad on synthetic rubber. July 1936. In German.	2.00
67891 Frames 149-178	Lecture by Prof. Dr. Hofmann on "From coal to rubber". In German.	3.00
67892 Frames 179-208	Lecture by Prof. Dr. Hofmann, Breslau, on "Origin of rubber synthesis". In German.	2.00
67893 Frames 209-232	Lecture on the German rubber industry by Dr. E. Konrad, Leverkusen. In German.	2.00
86438 Frames 233-270	The influence of the German armed forces on the problem of supplying Germany with synthetic rubber. In German.	5.00
67894 Frames 271-289	Meeting of the Scientific Commission for "Buna", 14 Jan., 1938, in Leuna. In German.	2.00
67895 Frames 290-302	Further experiences with the hydrogenation of Aldol. In German.	1.00
67896 Frames 303-312	Experiments for clarifying the problem of the dehydration of butyleneglycol. In German.	1.00
67897 Frames 313-316	Present state of research on the production of butadiene by hydrogenation of monovinylacetylene. In German.	1.00
67898 Frames 317-322	On hydrogenation of vinylacetylene to butadiene by the use of zinc powder and lye. In German.	1.00
67899 Frames 323-331	A new approach to the production of butadiene and other dienes from acetylene, aldehydes, or ketones. In German.	1.00
67900 Frames 332-336	A new process for production of "Pinakon" as intermediary product for dimethylbutadiene. In German.	1.00
67901 Frames 337-345	Continuous polymerization of alkaline metals. In German.	1.00
67902 Frames 346-349	Continuous copolymerization and recovery of the hydrocarbons. In German.	1.00
67903 Frames 350-353	Recovery of bunen and styrene. In German.	1.00
67904 Frames 354-363	Continuous polymerization of "Buna S". In German.	1.00
67905 Frames 364-367	Research on regulators. In German.	1.00
67906 Frames 368-372	Experience with di-isopropylxanthogene-disulfide as a regulator in emulsion-polymerization of Buna 'N', Buna S and butadiene. In German.	1.00
67907 Frames 373-378	Emulsion polymerization of butadiene or of mixtures of butadiene and styrene using vinyl ethers as regulators. In German.	1.00
67908 Frames 379-382	Research on the stabilization of polymers. In German.	1.00
67909 Frames 383-389	Continuous processing of copolymers. In German.	1.00
67910 Frames 390-395	New methods in the treatment of Buna 'S'. In German.	1.00
67911 Frames 396-411	Physico-chemical research on Buna 'S'. In German.	1.00

67912 Frames 412-424 — An investigation into the process of polymerization in the production of Buna 'S'. In German. 1.00

67913 Frames 425-432 — Test to establish absolute viscosity and elasticity values of plastic, elastic materials. In German. 1.00

67914 Frames 433-446 — On the suitability of certain fatty acids as emulsifiers for the production of Bunas 'S' and 'O'. In German. 1.00

67915 Frames 447-465 — On the behavior of unsaturated polymers toward oxygen. In German. 2.00

67916 Frames 466-473 — Production and polymerization of fluorobutadienes. In German. 1.00

67917 Frames 747-476 — Polymers and copolymers with vinyl pyridine. In German. 1.00

67670 Frames 477-480 — Butadiene copolymers with new components. In German. 1.00

67918 Frames 481-493 — Some new results in the fields of chloroprene polymerization. In German. 1.00

67919 Frames 494-502 — The significance of degrading in rubber technique. In German. 1.00

67920 Frames 503-521 — Investigation of Buna degradation and determination of the degree of degradation. In German. 2.00

86439 Frames 522-529 — Thermal degradation. In German. 2.00

67921 Frames 530-531 — Degradation catalysts. In German. 1.00

67922 Frames 532-542 — Influence of shape and of added substance in the degradation of Buna 'S'. In German. 1.00

L 67923 Frames 543-552 — Influence of experimental conditions on the damping of vulcanized soft-rubber. In German. 1.00

L 67924 Frames 553-565 — A contribution to the characterization of the plastic-elastic state. In German. 1.00

L 67925 Frames 566-600 — Determination of the energy of deformation. In German. 3.00

L 67926 Frames 601-605 — Degradation and energy of deformation of vulcanized Buna S. In German. 1.00

L 67927 Frames 606-613 — Comparative tests of the electrical properties of Buna and plastics. In German. 1.00

L 67928 Frames 614-619 — Suitability of Buna for cables. In German. 1.00

L 67929 Frames 620-626 — Buna for the production of hard rubber. In German. 1.00

L 67930 Frames 627-642 — Present state of research in the field of oilproof substances. In German. 1.00

L 67931 Frames 643-648 — Present state of research on Buna-Latex. In German. 1.00

L 67932 Frames 649-653 — The problem of carbon-black fillers. In German. 1.00

L 67933 Frames 654-657 — The problem of stearic acid. In German. 1.00

L 67934 Frames 658-659 — Cross-linked polyvinyl ethers as substitute for factice. In German. 1.00

L 67935 Frames 660-661 — Chlorination of synthetic butadiene polymers. In German. 1.00

L 67936 Frames 662-682 — Report on the scientific rubber conference at Leverkusen, 31 Jan., 1939. Kinetic investigation of polymerization processes. (Chloroprene as an example). In German. 2.00

L 67937 Frames 683-708 — Mixed coagulation of Buna S and activated carbon black. In German. 2.00

67938 Frames 709-721 — Experiments on emulsion polymerization, illustrated by the example of chloroprene. In German. 1.00

L 67939 Frames 722-732 — Drying of igelite suspensions. In German. 1.00

L 67940 Frames 733-751 — Sales report on thermoplastic plastics and synthetic rubber. In German. 2.00
Frames 752-754 missing on reel.

L 67941 Frames 755-767 — Chemistry of synthetic rubber. In German. 1.00

L 67942 Frames 768-791 — Problems of viscosity of high polymers. In German. 2.00

L 67943 Frames 792-799 — Copolymers of vinyl cotacetyl ether, styrene, malsic anhydride and thixotropic substances. In German. 1.00

L 67944 Frames 800-809 — New results on the reaction mechanisms of polymerization of chloroprene. In German. 1.00

L 67945 Frames 810-821 — Research on the $AlCl_3$ precipitation of Buna S 3-Latex. In German. 1.00

L 86440 Frames 822-888 — Developmental research by the TKV (Office for technical rubber utilization) Leverkusen, 1943/1944. In German. 8.00

L 67874 — Reports at conferences of the Rubber Commission (Kautschuk Kommission) 1931, 1933, 1936-1939. Index. 1.00

PB L 81131. SUSICH, VON. Technical butadiene catalysts (AAF T-2 Translation 2607). Jul 1947. 16 p. Price: Microfilm-$1.25 - Photostat-$2.00
The chemical, physical nature of catalyst used in the production of butadiene from 1,3 and 1,4-butanediol was generally unknown. X-ray tests revealed that these catalysts consist of sodium pyrophosphate and sodium metaphosphate with small addition of free phosphoric acid. The phosphoric acid in the catalyst was in a phosphate-phosphoric acid combination which is difficult to detect by X-ray. The life of the catalyst is principally limited by resinification. Attempts to improve the empiric butadiene catalyst failed.

MISCELLANEOUS

PB L 81500. HOLLOWAY, O. WILLARD and ISAAC, OLIVER B. Classified list of OTS printed reports: A list of reports on German and Japanese technology prepared by American investigators which are available in printed form from the Office of Technical Services. Oct 1947. 59 p. Price: Mimeo-75¢

This list catalogs about 1,800 reports on German technology prepared by American investigators who have searched German firms and laboratories over the past two years for information of value to American business and industry. Unlike most OTS reports, which are available only in photostat or microfilm, the reports listed here are available in mimeograph, multilith, or other printed form. Included are the bulk of the reports received from the U. S. Army's Field Information Agency, Technical, the Combined Intelligence Objectives Agency, and the Joint Intelligence Objectives Agency. The list refers the reader to the page number of the Bibliography of Scientific and Industrial Reports where abstracts of reports are found. The publication is arranged in three parts: (1) Classified list of reports giving author, title, date, pages, price, PB number, and volume and page reference to the Bibliography; (2) Series list naming the series included with reference to the PB number; (3) An index from PB number to the page number in the publication where the complete entry may be found.

PB L 73621. VIENNA, AUSTRIA. UNIVERSITY. Dissertations in the medical, physical and chemical field. (FIAT Microfilm Reel Q 1, Frames 1-919) 1939-1944. 919 f. Price: Microfilm-$6.00 - Enlargement print-$92.00

This reel was prepared by FIAT investigators in Germany. 20 individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-7 PB L 73621	Examination of sound wave fields in liquids. By Franziska Seidl. Aug 25, 1944. In German.	$1.50
8-10 PB L 73621	Piezo-electric crystals with properties of seignette salt. By Franziska Seidl. Sep 6, 1944. In German.	1.50
11-14 PB L 73621	Piezo-electric crystals. By Franziska Seidl. n.d. In German.	1.50
15-120 PB L 73621	Electrical conductivity after annealing, and pyroelectricity of seignette salt-crystals. By Prihoda. Mar 1939. In German.	11.00
121-163 PB L 73621	The influence of supersonics on abnormal dielectrics. By Schmeiser. Jan 1939. In German.	6.00
164-211 PB L 73621	Behavior of crystal powder under high pressure. By Deutsch. Feb 1939. In German.	5.00
212 PB L 73621	This frame number is missing.	
213-269 PB L 73621	Piezo-electric supersonic transmitter and tests of oscillating quartzes. By Schweidler. Jun 1940. In German.	6.00
270-307 PB L 73621	Contribution to the dosimetry of x-ray irradiation. By Zakovsky. 1941. In German.	4.00
308-360 PB L 73621	Behavior of seignette salt crystals under high pressure. By Blaha. Dec 1941. In German.	5.50
361-444 PB L 73621	Photoelectric conductivity and crystal photo-effect in seignette salt crystals. By Kolbe. 1942. In German	8.50
445-475 PB L 73621	Economic viewpoints in the design of cyclotron magnets. By Hans Thirring. n.d. In German.	3.50
476-503 PB L 73621	High frequency circuit for a cyclotron. By H. Salow. n.d. In German.	3.00
504-511 PB L 73621	Eye alteration by spotted fever. By Fanta. 1946. In German.	1.50
512-517 PB L 73621	Circulatory disturbances during convalescence from spotted fever. By Hans Siedek. 1943. In German.	1.50
518-520 PB L 73621	Convergence disturbances after spotted fever. By Tauber. 1943. In German.	1.50
521-526 PB L 73621	The removal of intraorbital foreign bodies after Kroenlein's temporary resection. By Hejer. 1944. In German.	1.50
527-530 PB L73621	Part of an incomplete report on catarrhal icterus after inhalation of trinitrotoluene vapors by workers in an ammunition factory. n.d. In German.	1.50
531-562 PB L 73621	Effects of trinitrotoluene on rabbits and dogs. By Hans Sarkander. 1944. In German.	3.50
563-919 PB L 73621	Military surgery. By A. Zimmer. 1944. In German.	36.00

PB L 73621-S. VIENNA, AUSTRIA. UNIVERSITY. Dissertations in the medical, physical and chemical field. (FIAT Microfilm Reel Q 1, Frames 1-919, abstract cards) 1939-1944. 25 p. Price: Microfilm-$1.00 - Photostat-$2.00

Brief abstracts of the individual items on the above reel Q 1, PB L 73621, prepared by FIAT personnel in Germany.

PATENTS

MISCELLANEOUS

PB L 70436. DEUTSCHES MUSEUM, PATENTARCHIV, MUNICH, GERMANY. German patents in various fields issued in 1944. (FIAT Microfilm Reel E 33, Frames 1-965) 1928-1943. 965 f. Price: Microfilm-$6.00 - Enlargement print-$96.50

This reel consists of 350 patents issued by the German patent office from Mar-Dec 1944. The patent numbers range from 745 389 to 745 774 (some patents are missing). The individual patents are listed below and will be available separately as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB, patent and frame numbers when ordering individual items. In German.

Frames	Title	Price
4-6 PB L 70436	I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of polyamides. Ger. patent 745 389, Apr 25, 1944. Application I 67 920 IVe/39 c, dated Sep 26, 1940. Inventor: Jacobson, R. In German. Frames 1-3 contain introductory material.	$1.50
6A-8 PB L 70436	GEORGE VON GIESCHE'S ERBEN., BRESLAU, GERMANY. Use for an aluminum-bearing zinc alloy. Ger. patent 745 390, Mar 31, 1944. Application G 99 371 VIa/40 b, dated Jan 31, 1939. Inventors: Burkhardt, A. and Bayer, K. In German.	1.50

9-11 PB L 70436 ZEISS, CARL, CO., JENA, GERMANY. Set of prisms for spectroscopes. Ger. patent 745 391, Mar 31, 1944. Application Z 27 242 IXa/42 h, dated Aug 5, 1942. Inventor: Hansen, G. In German. 1.50
Drawings.

12-13 PB L 70436 ZEISS, CARL, CO., JENA, GERMANY. Device to eliminate undesirable partial light polarization. Ger. patent 745 392, Mar 2, 1944. Application Z 26 470 IXa/42 h, dated Jun 13, 1941. Inventor: Joss, G. In German. 1.50
Drawings.

14-15 PB L 70436 BUSCH, EMIL, A. G., OPTISCHE INDUSTRIE, RATHENOW, GERMANY. Colorless magnifying glass. Ger. patent 745 393, Jun 17, 1944. Application B 199 394 IXa/42 h, dated Aug 29, 1943. Inventor: Martin, K. In German. 1.50
Drawings.

16-20 PB L 70436 GEISSLER, L. (Inventor). Filling and shaking apparatus for use with butyrometers. Ger. patent 745 394, Mar 31, 1944. Application G 102 613 IXb/42 l, dated Nov 30, 1940. In German. 1.50
Drawings.

21-23 PB L 70436 ASKANIA WERKE A. G., BERLIN. Reciprocal-value converter. Ger. patent 745 395, Mar 31, 1944. Application A 85 546 IXb/42 m, dated Jul 9, 1934. Inventor: Beck, R. In German. 1.50
Drawings

24-25 PB L 70436 ALUMINIUMWERKE NÜRNBERG G.M.B.H., GERMANY. Light metal pistons for internal combustion engines. Ger. patent 745 396, Oct 15, 1944. Application A 95 646 Ia/46 c^1, dated May 15, 1942. Inventor: Kuhn, M. In German. 1.50
Drawing.

26-29 PB L 70436 CASTELLI, X. (Inventor). Threading attachment for lathes. Ger. patent 745 397, Apr 19, 1944. Application C 54 349 Ib/49 a, dated Sep 11, 1938. In German. 1.50
Drawings.

30-31 PB L 70436 "MIAG" MÜHLENBAU UND INDUSTRIE A. G., and other firms, BRAUNSCHWEIG, GERMANY. Treatment of crops, etc. Ger. patent 745 398, Mar 21, 1944. Application M 146 595, dated Nov 30, 1939. Inventors: Wille, K. and others. In German. 1.50
Supplement to patent 730 662.

32-34 PB L 70436 FRANKE & HEIDECKE FABRIK PHOTOGRAPHISCHES PRÄZISIONSAPPARATE, BRAUNSCHWEIG, GERMANY. Depth-of-focus indicator for cameras. Ger. patent 745 399, Dec 9, 1944. Application F 88202 IXa/57 a, dated Apr 17, 1940. Inventor: Priesemann, W. In German. 1.50
Drawings.

35-37 PB L 70436 JUNKERS FLUGZEUG UND MOTORENWERKE A. G., DESSAU, GERMANY. Hollow metal covered aircraft rudder without inner longitudinal walls. Ger. patent 745 400, Apr 25, 1944. Application J 66 048 XI/62 b, dated Dec 1, 1939. Inventors: Hartmann, G. and Freundel, F. In German. 1.50
Drawings.

38-39 PB L 70436 KELLER, H. (Inventor). Sugar-dissolving apparatus for the cold production of sirup. Ger. patent 745 404, Mar 16, 1944. Application K 161 624 IVa/89 i, dated Jul 5, 1941. In German. 1.50
Drawings.

40-41 PB L 70436 GES. FÜR KOHLENTECHNIK M. B. H., DORTMUND, GERMANY. Process for production of esters. Ger. patent 745 405, Nov 18, 1944. Application G 104 101 IVd/12 o, dated Sep 16, 1941. Inventors: Höss, E. and Blättner, H. In German. 1.50

42-44 PB L 70436 F. A. NEUMANN CO., ESCHWEILER, GERMANY. Spherical metal container (for liquids and gases). Ger. patent 745 406, Mar 31, 1944. Application N 46 623 Ia/17 g, dated Apr 7, 1943. Inventor: Baumgärtner, O. In German. 1.50
Drawings.

45-46 PB L 70436 METALLGESELLSCHAFT A. G., FRANKFURT AM MAIN, GERMANY. Apparatus for dehydration and separation of deflocculations from clayish waste water in flotation plants. Ger. patent 745 407, Mar 16, 1944. Application M 146 154 VIb/1 c, dated Sep 27, 1939. Inventor: Oppen, E. In German. 1.50
Drawings.

47-48 PB L 70436 VON RAUTENKREUZ, HERMANN, INTERNATIONALE TIEFBOHR K. G., CELLE, GERMANY. Rotary table (for deep boring). Ger. patent 745 408, Mar 21, 1944. Application R 109 429 VIb/5 a, dated Feb 25, 1941. Inventor: von Rautenkreuz, H. In German. 1.50
Drawings.

49-52 PB L 70436 WEIGEL, K. (Inventor). Method and equipment for mining coal with a back-slope cutting device which forms a groove for use in removing the coal. Ger. patent 745 409, Apr 25, 1944. Application W 108 192 VIb/5 b, dated Dec 10, 1940. In German. 1.50
Drawings.

53-54 PB L 70436 TOMASZOWSKA FABRYKA SZTUCZNEGO JEDWABIN SPOLKA AKCYJNA, WARSAW, POLAND. Process for bleaching synthetic or natural fibers. Ger. patent 745 410, Mar 31, 1944. Application T 51179 IVd/8 i, dated Oct 26, 1938. Inventor: Borynicz, A. In German. 1.50

55-56 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN, GERMANY. High-frequency signal communication system over wires with intermediate amplifiers. Ger. patent 745 411, Apr 25, 1944. Application A 79 411 VIIIa/21 a^4, dated May 15, 1936. Inventors: Baranowsky, R. and Lilienthal, M. In German. 1.50
Supplement to patent 724 514.

57-59 PB L 70436 MANUFACTURES DE PRODUITS CHIMIQUES DU NORD ETABLISSEMENTS KUHLMANN, PARIS, FRANCE. Process for production of chromiferous monoazo dyes. Ger. patent 745 412, Apr 25, 1944. Application C 55 600 IVd/22 a, dated Jan 20, 1940. Inventors: Kopp, G. and Maybeck, J. In German. 1.50

60-62 PB L 70436 GESELLSCHAFT FÜR CHEMISCHE INDUSTRIE, BASEL, SWITZERLAND. Process for production of

monoazo dyes. Ger. patent 745 413, Apr 25, 1944. Application G 106 270 IVd/22 a, dated Apr 24, 1942. Inventors: Felix, F. and Heckendorn, A. In German. 1.50

63-66 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of polyazo dyes. Ger. patent 745 416, Aug 8, 1944. Application I 58 950 IVd/22 a, dated Aug 28, 1937. Inventor: Zervas, P. In German. 1.50

67-68 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of asymmetrical thioindigo blue. Ger. patent 745 417, Mar 13, 1944. Application I 66 493 IVd/22 e, dated Feb 16, 1940. Inventor: Heyna, J. In German. 1.50

69-70 PB L 70436 DYNAMIT A. G. TROISDORF, GERMANY. Process for the manufacture of bearings from phenolaldehyde resins. Ger. patent 745 521, Mar 2, 1944. Application D 76 580 IVc/39 b, dated Nov 12, 1937. Inventor: Pinten, P. In German. 1.50

71-72 PB L 70436 RÖHM & HAAS G. M. B. H., DARMSTADT, GERMANY. Process for preparation of condensation products from urea and acrolein. Ger. patent 745 422, Mar 2, 1944. Application R 109 575 IVc/39 c, dated Jan 26, 1939. Inventor: Köhler, F. In German. 1.50

73-74 PB L 70436 PHRIX-ARBEITSGEMEINSCHAFT, HIRSCHBERG, GERMANY. Process for preparation of nitrogenous polymerization products. Ger. patent 745 423, Mar 2, 1942. Application 79 768 IVc/39 c, dated Sep 19, 1939. Inventors: Moldenhauer, O. and others. In German. 1.50

75-76 PB L 70436 I. G. FARBENINDUSTRIE, A. G., FRANKFURT AM MAIN, GERMANY. Process for preparation of mixed polymers from vinyl ethers. Ger. patent 745 424, Mar 31, 1944. Application I 63 981 IVc/39 c, dated Mar 4, 1939. Inventors: Fikentscher, H. and Gäth, R. In German. 1.50

77-78 PB L 70436 I. G. FARBENINDUSTRIE, A. G., FRANKFURT AM MAIN, GERMANY. Process for preparation of ethylene polymerization products. Ger. patent 745 425, Apr 19, 1944. Application I 64 072 IVc/39 c, dated Mar 15, 1939. Inventors: Hopff, H. and Goebel, S. In German. 1.50

79-81 PB L 70436 KARGES-HAMMER MASCHINENFABRIK, BRAUNSCHWEIG, GERMANY. Pressure autoclave. Ger. patent 745 426, Jul 29, 1944. Application K 162 576 IVa/53 c, dated Oct 26, 1941. Inventor: Geraths, J. In German. 1.50
Drawings.

82-83 PB L 70436 AUERGESELLSCHAFT A. G., BERLIN. Lock for radiograph case covers. Ger. patent 745 427, Jun 10, 1944. Application A 95 094 IXa/57 a, dated Feb 22, 1942. Inventor: Marx, B. In German. 1.50
Drawings.

84-85 PB L 70436 DR. BÖGER VEREINIGTE PHOTOKOPIEN-APPARATE K. G., HAMBURG, GERMANY. Guide arrangement for aerial photography. Ger. patent 745 428, Mar 13, 1944. Application V 39 250 IXa/57 a, dated Oct 14, 1942. Inventor: Mehlich, G. In German. 1.50
Drawing.

86-88 PB L 70436 PFEIFFER APPARATEBAU G. M. B. H. WETZLAR, GERMANY. Device for rewinding film strips. Ger. patent 745 429, Apr 19, 1944. Application P 82 394 IXa/57 a, dated Apr 29, 1941. Inventor: Holzapfel, W. In German. 1.50
Drawing.

89-90 PB L 70436 HELIOS-APPARATE WETZEL & SCHLOSSHAUER, HEIDELBERG, GERMANY. Piston pump for oils, grease, or other liquids. Ger. patent 745 430, Mar 13, 1944. Application H 162 386 Ia/59 a, dated May 29, 1940. Inventors: Schlosshauer, A. and Lamade, O. In German. 1.50
Drawings.

91-93 PB L 70436 KLUFTINGER, H. (Inventor). Tape stretching apparatus for fibrous materials. Ger. patent 745 432, Apr 19, 1944. Application K 165 392 VII/76 c, dated Jul 28, 1942. In German. 1.50
Drawing.

94-96 PB L 70436 OCENASEK, L. (Inventor). Counting device for use in packing tablets, pills, etc. Ger. patent 745 433, Jun 13, 1941. Application O 25 144 XII/81 a, dated Sep 23, 1941. In German. 1.50
Drawings.

97-98 PB L 70436 OPTIKOTECHNA G. M. B. H. PRAU, CZECHOSLOVAKIA. Rotating device for entrance prisms of telescopic sights. Ger. patent 745 434, May 27, 1944. Application O 24 580 IXa/ 42 h, dated May 23, 1940. In German. 1.50
Drawings.

99-101 PB L 70436 ASKANIA WERKE A. G., BERLIN. Binocular observation instrument for naval use. Ger. patent 745 435, Jun 19, 1944. Application A 90 706 IXa/ 42 h, dated Jan 11, 1940. Inventors: John, M. and Rosemann, A. In German. 1.50
Drawings.

102-103 PB L 70436 ASKANIA WERKE A. G., BERLIN. Device for adjusting the intercular distance of binocular teinoscopes. Ger. patent 745 436, May 27, 1944. Application A 93 325 IXa/42 h, dated Apr 29, 1941. Inventor: Befort, F. In German. 1.50
Drawings.

104-106 PB L 70436 METAWATT A. G. FABRIK ELEKTRISCHE MESSGERÄTE, NÜRNBERG, GERMANY. Photoelectric exposure meter. Ger. patent 745 437, Dec 1, 1944. Application M 139 445, dated Oct 12, 1937. Inventors: Bernhard, A. and Beyrich, G. In German. 1.50
Drawings.

107-109 PB L 70436 HATSCHECK, P. (Inventor). Interference spectroscope. Ger. patent 745 438, Apr 19, 1944. Application H 163 460 IXa/ 42 h, dated Oct 19, 1940. In German. 1.50
Drawings.

110-111 PB L 70436 HARTUNG, CARL A. CO., BERLIN. Method to control the addition of air or O_2 to the circulating

gas in the periodic reactivation of gas-washing agents. Ger. patent 745 439, Mar 13, 1944. Application H 159 288 IVb/26 d, dated Apr 14, 1939. Inventor: Hartung, C. In German. 1.50
Diagram.

112-113 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for reverse-developing of sensitized silver halide emulsion layers without intermediate exposure. Ger. patent 745 440, Mar 13, 1944. Application I 56 337 IVa/ 57 b, dated Nov 11, 1936. Inventors: Wilmanns, G. and others. In German. 1.50

114-115 PB L 70436 — VERSUCHS UND LEHRANSTALT FÜR BRAUEREI, BERLIN. Process for brewing beer containing vitamins. Ger. patent 745 442, Mar 31, 1944. Application V 38 365 IVa/6 b, dated Dec 30, 1941. Inventors: Fink, H. and Just, F. In German. 1.50

115-117 PB L 70436 — HOESCH A. G., DORTMUND, GERMANY. Dust-and waterproof slide fastener for shoes and other wearing apparel. Ger. patent 745 443, May 27, 1944. Application H 159 687 VII/3 c, dated May 26, 1939. Inventor: Milka, F. In German. 1.50
Supplement to patent 651 779.
Drawings.

118-120 PB L 70436 — METALLGESELLSCHAFT A. G., BERLIN. Process for production of ferriferous catalysts for CO hydrogenation. Ger. patent 745 444, Mar 2, 1944. Application M 144 025 IVd/ 12 o, dated Jan 25, 1939. Inventors: Herbert, W. and Gross, H. In German. 1.50

121-123 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for preparation of aromatic carboxylic acids. Ger. patent 745 447, Mar 31, 1944. Application I 67 732 IVd/ 12 o, dated Aug 29, 1940. Inventor: Braun, W. In German. 1.50

124-125 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for preparation of γ-ketopimelic acid or its salts. Ger. patent 745 448, Sep 4, 1944. Application I 69 119 IVd/12 o, dated Mar 15, 1944. Inventor: von Schickh. In German. 1.50

126-128 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Overhead wire arrangement for electric railways. Ger. patent 745 449, Oct 11, 1944. Application L 106 570 VIII d/20 k, dated Feb 6, 1942. Inventors: Iltgen, E. and Rybicki, K. In German. 1.50
Drawings.

129-131 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Circuit for A. C. operated vehicle. Ger. patent 745 450, Apr 19, 1944. Application L 103 424 VIII d/20 l, dated Feb 27, 1941. Inventor: Geserich, W. In German. 1.50
Wiring diagram.

132-134 PB L 70436 — SIEMENS PLANIAWERKE A. G. FÜR KOHLEFABRIKATE, BERLIN. Carbon sliding contact (for electric vehicle current collectors. Ger. patent 745 451, Mar 13, 1944. Application S 151 182 VIIId/ 20 l, dated Jul 9, 1942.
Inventor: von Wartburg, O.
In German. 1.50
Drawings.

135-136 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. High power D. C. motor with continuous field excitation. Ger. patent 745 452, Mar 13, 1942. Application L 102 779 VIIId/21 d^1, dated Dec 18, 1940. Inventor: Koppelmann, F. In German. 1.50
Drawing.

137-138 PB L 70436 — BROWN, BOVERI & CIE A. G., MANNHEIM, GERMANY. Current supply and outflow arrangement for electric motors. Ger. patent 745 453, Mar 13, 1944. Application B 190 563 VIIId/21 d^1, dated Apr 26, 1940. Inventor: Fleischmann, K. In German. 1.50

139-140 PB L 70436 — ZIEHL-ABEGG ELEKTRICITÄTS G. M.B.H., BERLIN. Brush-holder block for high speed electric motors. Ger. patent 745 454, Mar 13, 1944. Application Z 27 314 VIIId/21 d^1, dated Sep 11, 1942. Inventor: Binnewies, A. and Blume, W. In German. 1.50
Drawings.

141-143 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Protective device for transformers. Ger. patent 745 455, Apr 19, 1944. Application L 102 855 VIIId/21 d^3, dated Dec 23, 1940. Inventor: Camilli, G. In German. 1.50
Drawings.
Supplement to patent 739 764.

144-146 PB L 70436 — GESELLSCHAFT FÜR CHEMISCHE INDUSTRIE, BASEL, SWITZERLAND. Waterproof monoazo dye process for fibers. Ger. patent 745 456, May 15, 1944. Application G 104 787 IVd/22 a, dated Jan 31, 1942. Inventor: Henzi, A. In German. 1.50

147-148 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of monoazo dyes. Ger. patent 745 457, Mar 2, 1944. Application I 62 816 IVd/22 a, dated Nov 5, 1938. Inventor: Heinrich, E. In German. 1.50

149-150 PB L 70436 — J. R. GEIGY A. G., BASEL, SWITZERLAND. Process for production of o-oxyazo dyes. Ger. patent 745 458, Mar 13, 1944. Application G 106 400 IVd/22 a, dated May 20, 1942. Inventors: Consetti, A. and Schetty, G. In German. 1.50

151-153 PB L 70436 — GESELLSCHAFT FÜR CHEMISCHE INDUSTRIE, BASEL, SWITZERLAND. Process for production of disazo and trisazo dyes. Ger. patent 745 459, Apr 25, 1944. Application G 101 940 IVd/22 a, dated Jul 2, 1940. Inventor: Kaiser, O. In German. 1.50

154-155 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of water soluble disazo dyes. Ger. patent 745 460, Apr 19, 1944. Application I 70 031 IVd/22 a, dated Jul 9, 1941. Inventors: Sieglitz, A. and Reuter, M. In German. 1.50

156-157 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of disazo dyes. Ger. patent 745 461, Mar 13, 1944. Application I 71 803 IVd/22 a, dated Mar 17, 1942. Inventor: Petersen, S. In German. 1.50

158-162
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of vat dyes. Ger. patent 745 464, May 5, 1944. Application I 62 287 IVd/22 b, dated Aug 23, 1938. Inventors: Wieners, F. and Mieg, W. In German. 1.50

163-164
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Softening agent for high acylated cellulose. Ger. patent 745 467, Mar 13, 1944. Application I 69 976 IVe/39 b, dated Jul 3, 1941. Inventors: Kollek, L. and others. In German. 1.50

165-166
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of high polymeric resinous materials from ethylenimine and isocyanates or isothiocyanates. Ger. patent 745 472, Mar 13, 1944. Application I 65 237 IVe/39 c, dated Jul 23, 1939. Inventors: Esselmann, P. and Düsing, J. In German. 1.50

167-168
PB L 70436
PERIX ARBEITSGEMEINSCHAFT, HIRSCHBERG, GERMANY. Process for preparation of plastic high molecular polymerization products. Ger. patent 745 473, Mar 13, 1944. Application P 79 483 IVe/39 c, dated Jul 22, 1939. Inventors: Moldenhauer, O. and Bock, H. In German. 1.50

169-170
PB L 70436
W. C. HERAEUS G.M.B.H., HANAU, GERMANY. Use of gold alloys for spinning nozzles. Ger. patent 745 474, Mar 13, 1944. Application H 165 779 VIa/40 b, dated Jul 6, 1941. Inventor: Winkler, O. In German. 1.50

171-172
PB L 70436
HERAEUS VACUUMSCHMELZE A. G., HANAU, GERMANY. Use of nickel alloys for objects requiring high fatigue strength. Ger. patent 745 475, Mar 13, 1944. Application H 153 189 VIa/40 b, dated Oct 6, 1937. In German. 1.50

173-176
PB L 70436
LEITZ, ERNST, G.M.B.H., WETZLAR, GERMANY. Reading device for precision measurements. Ger. patent 745 476, Apr 19, 1944. Application L 99 765 IXb/42 b, dated Dec 24, 1939. Inventor: Fricke, H. In German. 1.50
Drawings.

177-180
PB L 70436
SCHÄFFER & BUDENBERG G.M.B.H., MAGDEBURG, GERMANY. Measuring or regulating instrument. Ger. patent 745 477, Mar 31, 1944. Application Sch 122 178 IXb/42 d, dated Mar 19, 1941. Inventor: Schumacher, O. In German. 1.50
Drawings.

181-183
PB L 70436
JUNKERS FLUGZEUG UND MOTORENWERKE A. G., DESSAU, GERMANY. X-ray testing equipment for hollow cylindrical parts. Ger. patent 745 478, Apr 19, 1944. Application J 68 273 IXb/42 k, dated Nov 22, 1940. Inventor: Kallenbach, H. In German. 1.50
Drawings.

184-187
PB L 70436
SOCIÉTÉ D' ÉTUDES ET DE PARTICIPATIONS, EAU, GAZ, ELECTRICITÉ, ENERGIE S. A., GENEVA, SWITZERLAND. Wood-gas generator. Ger. patent 745 479, May 5, 1944. Application P 84 546 Ia/46 a[4], Jul 10, 1942. Inventor: Pescara, R. In German. 1.50
Drawings.

188-189
PB L 70436
"CONCORDIA" MASCHINEN UND ELEKTRICITÄTS G.M.B.H., STUTTGART, GERMANY. Electromagnetic valve. Ger. patent 745 480, Mar 2, 1944. Application C 56 473 XII/47 g, dated May 3, 1941. Inventor: Pelikan, W. In German. 1.50
Drawing.

190-192
PB L 70436
ZAHN & CO., BERLIN. Iron pickling process with continuous circulation of the liquor. Ger. patent 745 481, May 5, 1944. Application Z 26 717 VIa/48 d, dated Nov 5, 1941. Inventor: Döll, R. In German. 1.50
Drawing.

193-195
PB L 70436
DIDIER WERKE A. G., BERLIN. Apparatus for passing off acid vapor in pickling plants. Ger. patent 745 482, May 5, 1944. Application D 87 381 VIa/48 d, dated Mar 28, 1942. Inventors: Koenen, K. and Ruppelt, G. In German. 1.50

196-197
PB L 70436
RHEINMETALL-BORSIG A. G., BERLIN. Gear pump. Ger. patent 745 483, Mar 21, 1944. Application R 110 369 Ia/59 c, dated Jun 20, 1941. Inventor: Dilk, C. In German. 1.50
Drawings.

198-200
PB L 70436
LIST, H. (Inventor). High powered diaphragm pump. Ger. patent 745 484, Apr 19, 1944. Application L 106 670 Ia/59 a, dated Jan 31, 1942. In German. 1.50
Drawings.

201-203
PB L 70436
TORRINGA, HENRI, THE HAGUE, HOLLAND. Interchangeable stopper for bottles, tubes, etc. Ger. patent 745 485, Mar 31, 1944. Application T 52 206 III/64 a, dated May 6, 1939. Inventor: Lien, S. In German. 1.50
Drawings.

204-206
PB L 70436
SÜDDEUTSCHE SPINDELWERKE, EBERSBACH, GERMANY. Mounting for rollers of textile drawing frames. Ger. patent 745 487, May 5, 1944. Application S 142 952 VII/76 c, dated Nov 17, 1940. Inventors: Plattenhardt, K. and Zinser, H. In German. 1.50
Drawings.

207-208
PB L 70436
TRIEB, H. (Inventor). Clamp for holding together logs arranged in piles. Ger. patent 745 488, Mar 13, 1944. Application T 59 056 XI/81 e, dated May 7, 1943. In German. 1.50
Drawings.

209-211
PB L 70436
DEMAG A. G., DUISBURG, GERMANY. Elevating and swinging attachment for bucket-handling gantry cranes. Ger. patent 745 489, Mar 13, 1944. Application D 82 983 XI/81 e, dated Oct 20, 1937. Inventor: Matten, W. In German. 1.50
Drawings.

212-213
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Spiral agitator. Ger. patent 745 491, Mar 2, 1944. Application I 65 477 IVb/12 e, dated Aug 19, 1939. Inventor: Hautge, E. In German. 1.50
Drawings.

214-216
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Control mechanism to determine the readiness for use of multiple circuit elements or transmission systems. Ger. patent 745 492, Mar 31, 1944. Application S 140 406 VIIIa/21 a[2], dated Mar 9, 1940. Inventor: Radach, S. In German. 1.50
Wiring diagram.

217-219
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of colored photographic layers. Ger. patent 745 493, May 5, 1944. Application I 55 072 IVa/57 b, dated May 24, 1936. In German. 1.50

220-221
PB L 70436
N. V. HOLLANDSCHE INGENIEURS MIJ., AMSTERDAM, HOLLAND. Process for manufacture of clothing and coatings affording protection against poison gas. Ger. patent 745 494, Mar 16, 1944. Application N 43 754 IVb/61 b, dated Mar 16, 1944. Inventor: Weehsberg, R. In German. 1.50

222-225
PB L 70436
KNEBEL, E. (Inventor). Process and equipment for production of vinegar (in a fermenting vat filled with chips). Ger. patent 745 495, May 5, 1944. Application K 161 975 IVa/6 e, dated Aug 20, 1941. In German. 1.50
Drawing.

226-228
PB L 70436
Electrically operated folding and bending press. Ger. patent 745 496, Nov 25, 1944. Application M 143 759 Ib/7 c, dated Dec 16, 1938. In German. 1.50
Drawings.

229-233
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Dyeing process for animal and cellulose fibers, fibers of cellulose esters or of mixtures of animal and cellulose fibers, or synthetic high molecular polyamides. Ger. patent 745 497, May 5, 1944. Application I 63 822 IVd/8 m, dated Feb 17, 1939. Inventors: Fischer, E. and Kirst, W. In German. 1.50

234-235
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of filtering materials, diaphragms, etc. Ger. patent 745 498, Apr 19, 1944. Application I 55 237 IVb/12 d, dated Jun 14, 1936. In German. 1.50

236-237
PB L 70436
DANGO & DIENENTHAL, SIEGEN, GERMANY. Cooling box for a blast furnace. Ger. patent 745 499, Mar 13, 1944. Application D 86 374 VIa/18 a, dated Nov 19, 1941. Inventor: Schmidt, K. In German. 1.50
Drawings.

238-240
PB L 70436
Arrangement for magnetic beam deflection in a cathode ray television tube. Ger. patent 745 500, Nov 25, 1944.
Application R 99 623 VIIIa/21 a[1], dated Jun 18, 1937. In German. 1.50
Wiring diagram.

241-242
PB L 70436
AKTIENGESELLSCHAFT VORM. SKODAWERKE, PILSEN, GERMANY. Electric motor with automatic mechanical brake. Ger. patent 744 501, Mar 13, 1944. Application A 89 321 VIIId/21 d[1], Apr 12, 1939. Inventors: Prada, A. and others. In German. 1.50

243-244
PB L 70436
DANNERBRG & MANDT, BERLIN, GERMANY. Gas-firing for gas producers for internal combustion engines. Ger. patent 745 503, Mar 13, 1944. Application D 83 260 V/24 e, dated Sep 3, 1940. Inventor: Kroll, W. In German. 1.50

245-246
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for production of monoazo dyes. Ger. patent 745 502, May 5, 1944. Application I 64 492 IVd/22 a, dated May 4, 1939. Inventors: Ohlendorf, H. and Richter, W. In German. 1.50

247-248
PB L 70436
Electroacoustical instrument for locating foreign particles in the human body. Ger. patent 745 504, Nov 29, 1944. Application D 85 231 IXa/ 30 a, dated Jun 13, 1941. In German. 1.50
Drawings.

249-250
PB L 70436
J. EBERSPÄCHER CO., ESSLINGEN, GERMANY. Clamping-bolt fitting for glass-roof frames. Ger. patent 745 505, Mar 16, 1944. Application E 50 850 V/37 e, dated Feb 25, 1938. Inventor: Offtermatt, G. In German. 1.50
Drawings.

251-253
PB L 70436
Tool for fabrication of plastic roof sections for automobile bodies. Ger. patent 745 506, Nov 30, 1944. Application P 77 582 XII/39 a, dated Jul 7, 1938. In German. 1.50
Drawings.

254-255
PB L 70436
HESS, FERDINAND, WATTENSCHEID, GERMANY. Recording device for instruments. Ger. patent 745 507, Mar 21, 1944. Application A 80 787 IXb/42 d, dated Oct 17, 1936. Inventor: Zoller, J. In German. 1.50
Drawing.

256-259
PB L 70436
STILLE, J. (Inventor). Exposure meter. Ger. patent 745 508, Apr 19, 1944. Application St 60972 IXa/42 h, dated Aug 8, 1941. In German. 1.50
Drawings.

260-262
PB L 70436
RÖSCH, F. (Inventor). Process for producing uniform color gradation (for subtractive color-mixing processes). Ger. patent 745 509, May 5, 1944. Application R 100 598 IXa/42 h, dated Oct 27, 1937. In German. 1.50

263-265
PB L 70436
SEEHASE, H. (Inventor). Calculating device for addition and subtraction. Ger. patent 745 510, May 5, 1944. Application S 110 906 IXb/42 m, dated Sep 8, 1933. In German. 1.50
Drawings.

266-273
PB L 70436
POWERS G.M.B.H., BERLIN. Calculating mechanism with an account-balancing

device for card-punch tabulating machines. Ger. patent 745 511, Apr 25, 1944. Application H 90 346 IXb/42 m, dated Apr 8, 1934. In German. 1.50
Drawings.

274-275 PB L 70436 — Cylinder-sealing device for internal combustion engines using pulverous fuels. Ger. patent 745 512, Nov 27, 1944. Application Soh 115 541 Ia/46 a^3, dated Apr 15, 1938. In German. 1.50
Drawing.

276-277 PB L 70436 — Electrolytic process for coating high-melting point metals such as copper, iron, nickel and brass, with low-melting point metals such as zinc, tin, cadmium and lead. Ger. patent 745 513, Nov 27, 1944. Application H 160 492 VIa/48 a, dated Aug 27, 1939. In German. 1.50

278-280 PB L 70436 — GÜNTHER & CO., FRANKFURT AM MAIN, GERMANY. Knife clamping and setting arrangement for end milling cutters. Ger. patent 745 514, May 5, 1944. Application G 102 224 Ib/49 b, dated Sep 7, 1940. In German. 1.50
Drawings.

281-283 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Interlocking-joint welder, especially for tanks composed of two parts. Ger. patent 745 515, May 5, 1944. Application A 81 149 Ib/49 h, dated Nov 15, 1936. Inventor: Schmid, W. In German. 1.50
Drawings.

284-287 PB L 70436 — GES. FÜR LUFTDES EISMASCHINEN A. G., HÖLLRIEGELSKREUTH, GERMANY. Flame-descaling machine for surface treatment of blooms. Ger. patent 744 516, Apr 25, 1944. Application G 103 856 Ib/49 h, dated Jul 27, 1941. Inventors: Buckman, J. and Meincke, E. In German. 1.50
Drawings.

288-290 PB L 70436 — JASCHINSKY, O. (Inventor). Folding piano key-board. Ger. patent 745 517, Mar 16, 1944. Application J 71 455 IIa/51 b, dated Feb 4, 1942. In German. 1.50
Drawings.

291-292 PB L 70436 — JAGENBERG-WERKE A. G., DÜSSELDORF, GERMANY. Processing of frozen foods. Ger. patent 745 518, Mar 16, 1944. Application J 68 077 IVa/53 c, dated Oct 20, 1940. In German. 1.50

293-296 PB L 70436 — ZELLSTOFFFABRIK WALDHOF, MANNHEIM, GERMANY. Process and equipment for manufacture of crinkled paper, metal foil, or fabrics. Ger. patent 745 519, Apr 19, 1944. Application R 98 188 VII/54 d, dated Apr 2, 1935. In German. 1.50
Drawings.

297-301 PB L 70436 — MAETZIG, K. and KELLER, I. (Inventors). Foolproof hardness-fixing baths (for motion picture films). Ger. patent 745 520, Mar 16, 1944. Application M 153 171 IVa/57 b, dated Feb 7, 1942. In German. 1.50

302-305 PB L 70436 — STOLZE, H. (Inventor). Automatic automotive gear shifting mechanism. Ger. patent 745 521, Apr 19, 1944. Application St 62 326 II/63 c, dated Oct 8, 1942. In German. 1.50
Drawings.

306-308 PB L 70436 — GEBR. EICKHOFF, MASCHINENFABRIK UND EISENGIESSEREI, BOCHUM, GERMANY. Chain coal cutting machine. Ger. patent 745 522, Nov 16, 1944. Application E 48 822 VIb/5 b, dated Oct 4, 1936. Inventor: Vorthmann, F. In German. 1.50
Drawings.

309-310 PB L 70436 — Process for rolling wide-flanged T-sections (steel). Ger. patent 745 523, Nov 29, 1944. Application I 63 848 Ib/7a, dated Feb 19, 1939. In German. 1.50
Drawings.

311-312 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Use of netting, felts, fleece, or other loosely woven synthetic fibers for filter purposes. Ger. patent 745 525, Mar 15, 1944. Application 745 526 IVb/12 d, dated Jan 9, 1937. Inventors: Herz, W. and others. In German. 1.50

313-314 PB L 70436 — KOMM, ERNST, AND SCHLÜTER, THEODOR, CO., DRESDEN, GERMANY. Process for preparation of solid lactic acid products. Ger. patent 745 526, Apr 19, 1944. Application K 153 720 IVd/12 o, dated Oct 6, 1939. Inventor: Komm, E. In German. 1.50

315-316 PB L 70436 — LA MONT KESSEL HERPEN & CO., K. G., BERLIN. Forced passage boiler. Ger. patent 745 527, Mar 15, 1944. Application G 97 412 X/13 e, dated Mar 6, 1938. Inventor: Pirsnacher, F. In German. 1.50

317-320 PB L 70436 — Chassis-less light tank car with four or more axles. Ger. patent 745 528, Nov 25, 1944. Application V 37 283 II/20 c, dated Dec 24, 1940. In German. 1.50
Drawings.

321-323 PB L 70436 — VEREINIGTE EISENBAHN SIGNALWERKE G. M.B.H., BERLIN. Use of a single relay with two coils, such as a diphase relay, for simultaneous control of two parallel connected signal circuits. Ger. patent 744 529, May 5, 1944. Application V 36 061 II/20 i, dated Jul 15, 1939. Inventor: Rehschuh, G. In German. 1.50
Wiring diagrams.

324-326 PB L 70436 — PINTSCH, JULIUS, K. G., BERLIN. Train-controlled warning signal system, especially for crossings. Ger. patent 745 530, May 5, 1944. Application P 72 799 II/20 i, dated Mar 4, 1936. Inventor: Wilckens, E. In German. 1.50
Wiring diagram.

327-329 PB L 70436 — R. R. crossing warning signal equipment for single or double track systems. Ger. patent 745 531, Nov 25, 1944. Application V 36 231 II/20 i, dated Oct 12, 1939. In German. 1.50
Wiring diagrams.

330-333 PB L 70436 — PINTSCH, JULIUS K. G., BERLIN. Remote control mechanism for primary elements for feeding automatic devices, such as

railroad crossing warning signals. Ger. patent 745 532, Apr 19, 1944. Application P 79 270 II/20 i, dated Jun 13, 1939. Inventors: Wilckens, E. and Schindler, G. In German. 1.50
Wiring diagrams.

334-339
PB L 70436
TELEFONBAU UND NORMALZEIT G.M.B.H., FRANKFURT AM MAIN, GERMANY. Teletype system. Ger. patent 745 533, May 5, 1944. Application H 158 254 VIIIa/21a[1], dated Jan 10, 1939. Inventor: Hebel, M. In German. 1.50
Wiring diagrams.

340-342
PB L 70436
FERNSEH G.M.B.H., BERLIN. Arrangement for producing line-synchronizing impulses for television transmission consisting of several high frequency oscillations. Ger. patent 745 534, Mar 31, 1944. Application F 84 130 VIIIa/21 a[1], dated Dec 12, 1937. Inventors: Möller, R. and Fahrenholz, S. In German. 1.50
Wiring diagrams.

343-345
PB L 70436
Arrangement for separation of impulses of different duration but equal amplitude, by conversion to impulses of variable amplitude. Ger. patent 745 535, Dec 1, 1944. Application T 51 251 VIIIa/21 a[1], dated Nov 10, 1938. In German. 1.50

346-347
PB L 70436
Method for prevention of self-excitation in push-pull amplifiers. Ger. patent 745 536, Mar 24, 1944. Application H 152 593 VIIIa/21 a[2], dated Aug 11, 1937. Inventor: Hollmann, H. In German. 1.50

348-349
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Arrangement for generation of modulated audio-frequencies. Ger. patent 745 537, Mar 2, 1944. Application S 131 499 VIIIa/21 a[2], dated Mar 31, 1938. Inventor: Wolak, K. In German. 1.50
Wiring diagram.

350-352
PB L 70436
Arrangement for carrier-frequency transmission of several frequency bands. Ger. patent 745 538, Dec 1, 1944. Application S 124 809 VIIIa/21 a[2], dated Nov 5, 1936. In German. 1.50
Wiring diagrams.

353-355
PB L 70436
SIEMENS SCHUCKERTWERKE A. G., BERLIN. D. C. tachometer, with terminal-voltage controlled regulator. Ger. patent 745 539, May 15, 1944. Application S 126 777, dated Apr 10, 1937. Inventor: Bergvall, R. In German. 1.50
Wiring diagrams.

356-357
PB L 70436
SIEMENS-SCHUCKERTWERKE A. G., BERLIN. Test and safety device for insulation resistance control of electric motors. Ger. patent 745 540, Mar 13, 1944. Application S 131 786 VIIId/21 d[2], dated Apr 22, 1938. Inventor: Ziegler, G. In German. 1.50

358-360
PB L 70436
SIEMENS-SCHUCKERTWERKE A. G., BERLIN. Circuit breaker with an arc chamber. Ger. patent 745 541, Mar 31, 1944. Application S 124 456 VIIIb/21, c, dated Oct 7, 1936. Inventor: Muller, O.
In German. 1.50
Wiring diagrams.
Supplement to patent 728 612.

361-363
PB L 70436
MÜLLER, OTTO, VIENNA, AUSTRIA. Auxiliary device for use in nailing thigh-bone fractures. Ger. patent 745 542, May 5, 1944. Application M 137 034 IXa/30 a, dated Jan 30, 1937. Inventor: Valls, J. In German. 1.50
Drawings.

364-366
PB L 70436
PORZELLANFABRIK C. M. HUTSCHENREUTHER, A. G., DRESDEN, GERMANY. Dental crowns of ceramic or plastic materials. Ger. patent 745 543, Aug 5, 1944. Application P 80 583 IXa/30 b, dated Apr 5, 1940. In German. 1.50
Drawings.

367-369
PB L 70436
HAIDEMÜHLER GLASHÜTTENWERKE G.M.B.H., HAIDEMÜHL, GERMANY. Dropper bottle. Ger. patent 745 544, May 5, 1944. Application B 182 870 IXa/30 g, dated Apr 23, 1938. Inventors: Bricke, R. and Domaschke, R. In German. 1.50
Drawing.

370-372
PB L 70436
Process and mold for casting rolling ingots. Ger. patent 745 545, Nov 29, 1944. Application V 36 514 VIa/31 c, dated Feb 23, 1940. In German. 1.50
Drawing.

373-375
PB L 70436
JUNGHANS, S. (Inventor). Apparatus for adjustable flow of metal in extrusion casting. Ger. patent 745 546, May 15, 1944. Application J 60 572 VIa/31 c, dated Feb 19, 1938. In German. 1.50
Drawings.
Supplement to patent 720 627.

376-377
PB L 70436
Process for production of cellulose (by heating wood, straw, grass, etc.). Ger. patent 745 547, Dec 7, 1944. Application P 79 812 IVb/55 b, dated Sep 27, 1939. In German. 1.50

378-379
PB L 70436
WAURICH & WEBER, FREITAL, GERMANY. Folding camera. Ger. patent 745 548, Mar 13, 1944. Application W 98 552 IXa/57 a, dated Apr 15, 1936. In German. 1.50
Drawing.

380-383
PB L 70436
SIEMENS-REINIGER WERKE A. G., BERLIN. Apparatus for x-ray photography of various cross-sections of the human body. Ger. patent 745 549, May 15, 1944. Application S 139 986 IXa/57 a, dated Jan 28, 1944. Inventors: Raab, L. and Gerneth, J. In German. 1.50
Drawings.

384-385
PB L 70436
HEBERLEIN & CO., A. G., WATTWIL, SWITZERLAND. Screening process for textile printing. Ger. patent 745 550, May 5, 1944. Application H 153 445 IVa/57 d, dated Oct 29, 1937. Inventor: Pfister, K. In German. 1.50

386-387
PB L 70436
KREGELOH, O. (Inventor). Nozzle for CO_2 fire extinguishers. Ger. patent 745 551, Mar 16, 1944. Application K 135 186 V/61 a, dated Sep 4, 1934. In German. 1.50
Drawings.

388-389 PB L 70436 BORGWARD, CARL F. W., BREMEN, GERMANY. Individual wheel suspension for automobiles. Ger. patent 745 552, Mar 13, 1944. Application B 183 163 II/63 c, dated May 17, 1938. In German. 1.50
Drawings.

390-393 PB L 70436 KARL AUGUST HEINSOTH INDUSTRIE UND TUNNELOFENBAU, HANNOVER, GERMANY. Continuous-type furnace. Ger. patent 745 553, May 15, 1944. Application H 134 430 V/80 c, dated Dec 14, 1932. In German. 1.50
Drawings.

394-395 LENK, K. (Inventor). Cutting arrangement for caissons. Ger. patent 745 554, May 15, 1944. Application L 99 111 V/84 c, dated Sep 23, 1939. In German. 1.50
Drawings.
Supplement to patent 604 252.

397-398 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Detergent. Ger. patent 745 555, Mar 13, 1944. Application I 67 037 IVd/8 i, dated May 19, 1940. Inventor: Doser, A. In German. 1.50

399-400 PB L 70436 Production of titanium dioxide. Ger. patent 745 556, Nov 27, 1944. Application T 51 055 IVb/12 i, dated Sep 30, 1938. In German. 1.50
Supplement to patent 700 918.

401-402 PB L 70436 Process for recovery of thorium. Ger. patent 745 557, Nov 30, 1944. Application R 103 507 IVb/12 m, dated Oct 9, 1938. In German. 1.50
Supplement to patent 729 059.

403-404 PB L 70436 Production of antiknock gasoline. Ger. patent 745 558, Nov 29, 1944. Application I 67 073 IVd/12 o, dated May 26, 1940. In German. 1.50

405-406 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Preparation of quaternary heterocyclic nitrogen compounds. Ger. patent 745 559, Mar 13, 1944. Application I 48626 IVc/12 p, dated Dec 22, 1933. Inventors: Hahl, H. and others. In German. 1.50

407-408 PB L 70436 Preparation of secondary and tertiary aromatic amines. Ger. patent 745 560, Dec 7, 1944. Application I 63 458 IVc/12 q, dated Jan 11, 1939. In German. 1.50

409-410 PB L 70436 Preparation of glycosides. Ger. patent 745 561, Nov 30, 1944. Application I 56 719 IVd/12 q, dated Dec 25, 1936. In German. 1.50

411-413 PB L 70436 Process for recovery of oils from tarry residues. Ger. patent 745 562, Dec 1, 1944. Application P 80 609 IVd/12 r, dated Apr 10, 1940. In German. 1.50
Drawings.

414-416 PB L 70436 CONTI, GIOVANNI GINORI and others, FLORENCE, ITALY. Steam boiler with indirect heating. Ger. patent 745 563, Aug 12, 1944. Application G 99 093 X/13 g, dated Dec 8, 1938. Inventor: Conti, P. In German. 1.50
Drawings.

417-418 PB L 70436 ADLERWERKE VORM. HEINRICH KLEYER A. G., FRANKFURT AM MAIN, GERMANY. Locking device for typewriter tabulation attachments. Ger. patent 745 564, Mar 16, 1944. Application A 93 256 XII/15 g, dated Apr 18, 1941. Inventor: Lehmann, A. In German. 1.50
Drawings.

419-421 PB L 70436 BROWN, BOVERI & CIE A. G., MANNHEIM, GERMANY. Brake system for D. C.-operated vehicles. Ger. patent 745 566, May 5, 1944. Application B 193 264 VIIId/20 l, dated Feb 11, 1941. Inventors: Monteuffel, E. and others. In German. 1.50
Wiring diagram.

422-423 PB L 70436 Filter arrangement for wire broadcasting systems. Ger. patent 745 567, Nov 30, 1944. Application L 94 773 VIIIa/21 a^2, dated May 12, 1938. In German. 1.50
Wiring diagrams.

424-425 PB L 70436 PERTRIX-WERKE G.M.B.H., BERLIN. Production of zinc cups especially for galvanic cells. Ger. patent 745 568, Mar 13, 1944. Application P 80 258 IVb/21 b, dated Jan 10, 1940. Inventor: Werner, W. In German. 1.50
Drawings.

426-428 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. High-tension switchboard. Ger. patent 745 569, Mar 24, 1944. Application A 79 366 VIII b/21 c, dated May 10, 1936. Inventor: Gasiorowski, E. In German. 1.50
Drawings.

429-430 PB L 70436 Switchboard panel control. Ger. patent 745 570, Nov 27, 1944. Application S 137 968 VIIIb/21 c, dated Jul 26, 1939. In German. 1.50

431-433 PB L 70436 Rotary switch. Ger. patent 745 571, Nov 30, 1940. Application S 142 568 VIIIb/21 c, dated Oct 12, 1940. In German. 1.50
Drawings.

434-435 PB L 70436 SIEMENS & HALSKE A. G., BERLIN. Axis of rotation for movable circuit elements. Ger. patent 745 572, Mar 24, 1944. Application S 141 076 VIIIb/21 c, dated May 15, 1940. Inventor: Nicklaus, E. In German. 1.50

436-437 PB L 70436 SIEMENS SCHUCKERTWERKE A. G., BERLIN. Electromagnetic release for A. C. installations. Ger. patent 745 573, Mar 24, 1944. Application S 143 770 VIII b/21 c, dated Oct 2, 1936. Inventors: Kesselring, F. and Janzen, O. In German. 1.50
Drawings.

438-440 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Control mechanism for D. C. generators. Ger. patent 745 574, May 5, 1944. Application L 102 604 VIIId/21 d^1, dated Dec 3, 1940. Inventor: Koppelmann, F. In German. 1.50
Wiring diagram.

441-442 PB L 70436 BROWN, BOVERI & CIE A. G., MANNHEIM, GERMANY. Current

supply for slip-ring induction motors. Ger. patent 745 575, Mar 16, 1944. Application B 193 196 VIIId/21 d², dated Feb 2, 1941. Inventor: Fleischmann, K. In German. 1.50
Drawing.

443-445 PB L 70436 — SCHOELER, A. (Inventor). Process and apparatus for occlusion of easily oxidized metals in metal pipes. Ger. patent 745 577, May 15, 1944. Application Sch 119 455 VIIIc/21 g, dated Nov 7, 1939. In German. 1.50
Drawings.
Supplement to patent 721 911.

446-447 PB L 70436 — Process for purification of the hydrocarbons, soluble in concentrated sulfuric acid, recovered from refining waste in the mineral oil industry. Ger. patent 745 578, Dec 1, 1944. Application N 43 841 IVc/22 h, dated Feb 23, 1940. In German. 1.50

448-450 PB L 70436 — SCHILD, K. and SCHARFF, J. (Inventors). Process and equipment for shearing and depilating skins (especially rabbit skins). Ger. patent 745 579, Apr 19, 1944. Application Sch 120 506 VII/28 b, dated May 30, 1940. In German. 1.50

451-452 PB L 70436 — JAPAN INSTITUTE FOR CHEMICAL FIBRE INC., SAKYOKU, JAPAN. Process for manufacture of rayon fibers from polyvinylalcohol-cellulose mixtures and/or vegetable or animal albumin. Ger. patent 745 580, May 5, 1944. Application J 67 199 IVc/29 b, dated Jun 15, 1940. Inventors: Sakurada, I. and others. In German. 1.50

453-454 PB L 70436 — Casting mold (for dies). Ger. patent 745 582, Nov 30, 1944. Application H 165 603 VIa/31 c, dated Jun 30, 1941. In German. 1.50
Drawings.

455-456 PB L 70436 — MÜLLER, ERHARD, ESSLINGEN, GERMANY. Die-casting machine. Ger. patent 745 583, Mar 16, 1944. Application M 148 356 VIa/31 c, dated Aug 8, 1940. Inventor: Nübel, K. In German. 1.50
Drawing.

457-459 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Equipment for handling mass-produced glassware during the tempering process. Ger. patent 745 584, May 5, 1944. Application L 102 734, dated Dec 14, 1940. Inventor: Schiller, A. In German. 1.50
Drawings.

460-462 PB L 70436 — CIESIELSKI, R. (Inventor). Spring-fastening method for mattresses and furniture. Ger. patent 745 584, Mar 21, 1944. Application C 56 513 X/34 g, dated May 21, 1941. In German. 1.50
Drawings.

463-464 PB L 70436 — SCHERRER, J. (Inventor). Electric release for mine conveyor blocking devices. Ger. patent 745 586, Mar 16, 1944. Application Sch 125 003 XI/35 a, dated May 31, 1942. In German. 1.50

Wiring diagrams.
Supplement to patent 726 310.

465-466 PB L 70436 — BRAUNMÜHL, H. and WEBER, W. (Inventors). Circuit for magnetic recorders. Ger. patent 745 587, Mar 16, 1944. Application B 196 102 IXa/42 g, dated Oct 26, 1940. In German. 1.50

467-468 PB L 70436 — RORIPHON ELEKTRO-AKUSTISCHE APPARATEBAU G.M.B.H., MUNICH, GERMANY. Carrier for magnetic recorder. Ger. patent 745 588, Mar 16, 1944. Application R 106 854 IXa/42 g, dated Aug 15, 1939. Inventor: Rohling, H. In German. 1.50

469-471 PB L 70436 — Spark producer for spectrum analysis. Ger. patent 745 589, Nov 30, 1944. Application Z 26 675 IXa/42 h, dated Oct 10, 1941. In German. 1.50
Wiring diagrams.

472-476 PB L 70436 — KODAK A. G., BERLIN. Process and equipment for mounting lenses. Ger. patent 745 590, May 15, 1944. Application K 158 206 IXa/42 h, dated Jul 25, 1940. Inventor: Crumrine, C. In German. 1.50
Drawings.

476-478 PB L 70436 — RAPISARDI, M. (Inventor). Tachometer. Ger. patent 745 591, Mar 15, 1944. Application R 106 195 IXb/42 c, dated Oct 10, 1939. In German. 1.50
Drawings.

479-481 PB L 70436 — SIEMENS & HALSKE A. G., BERLIN. Accelerometer. Ger. patent 745 592, May 15, 1944. Application S 144 614 IXb/42 c, dated Mar 27, 1941. Inventor: Raudorf, W. In German. 1.50
Drawings.

482-485 PB L 70436 — Card punch bookkeeping machine. Ger. patent 745 593, Dec 9, 1944. Application A 84 670 IXb/43 a, dated Jul 2, 1930. In German. 1.50
Drawings.

486-487 PB L 70436 — Four-cycle internal combustion engine. Ger. patent 745 594, Nov 27, 1944. Application F 88 499 Ia/46 a², dated Jun 28, 1940. In German. 1.50

488-490 PB L 70436 — Controlled dust-supply valve for internal combustion engines using pulverous fuels. Ger. patent 745 595, Nov 30, 1944. Application Sch 109 653 Ia/46 a³, dated May 21, 1935. In German. 1.50
Drawings.

491-493 PB L 70436 — SCHLAGINTWEIT, H. (Inventor). Cooling system for in-line engines. Ger. patent 745 596, Mar 21, 1944. Application Sch 108 898 Ia/46 c⁴, dated Jan 6, 1936. In German. 1.50
Drawings.

494-495 PB L 70436 — HANSEN, G. (Inventor). Anodic oxidation process for aluminum and aluminum alloys. Ger. patent 745 597, Mar 16, 1944. Application H 150 421 VIa/48 a, dated Jan 30, 1937. In German. 1.50

496-497
PB L 70436
STEINER, HECKELMANN, and others. MUNICH, GERMANY. Watch-shaped miniature camera. Ger. patent 745 598, Mar 16, 1944. Application St 60 255 IXa/57 a, dated Jul 9, 1939. Inventor: Steiner, K. In German. 1.50
Drawings.

498-501
PB L 70436
KORELLE-WERK G. H. BRANDTMANN & CO., DRESDEN, GERMANY. Focusing arrangement for cameras with focal plane shutters. Ger. patent 745 599, May 15, 1944. Application K 160 043 IXa/57 a, dated Feb 5, 1941. Inventor: Schlaubitz, A. In German. 1.50
Drawings.

502-504
PB L 70436
ZEISS IKON A. G., DRESDEN, GERMANY. Lamp adjustment for projectors. Ger. patent 745 600, May 15, 1944. Application Z 26 371 IXa/57 a, dated Apr 19, 1941. Inventor: Hoffmann, K. In German. 1.50
Drawings.

505-507
PB L 70436
UNIVERSUM-FILM A. G., BERLIN. Rail-system for motion picture cameras. Ger. patent 745 601, Mar 16, 1944. Application U 15 601 IXa/57 a, dated Feb 19, 1942. Inventors: Kabelitz, W. In German. 1.50
Drawings.

508-511
PB L 70436
WIENER KOFFERSCHLOSS & METALL-WORENFABRIK A. G., VIENNA, AUSTRIA. Safety device for screw presses. Ger. patent 745 602, May 19, 1944. Application W 107 101 Ib/58 b, dated Apr 13, 1940. In German. 1.50
Drawings.

512-514
PB L 70436
TOUSSAINT, HEINRICH, and BOCHUMER EISENHÜTTE, HEINTZMANN & CO., BOCHUM, GERMANY. Two-part mine rammer. Ger. patent 745 603, May 15, 1944. Application T 38 634 VIb/5 c, dated Apr 5, 1931. In German. 1.50
Drawings.

515-518
PB L 70436
BUSCH, W. (Inventor). Mine-shaft coal conveyor system. Ger. patent 745 604, May 15, 1944. Application B 186 177 VIb/5 d, dated Feb 3, 1939. In German. 1.50
Drawings.

519-522
PB L 70436
Hydraulic sheet metal drawing press. Ger. patent 745 605, Nov 30, 1944. Application Soh 114 611 Ib/7 c, dated Dec 24, 1937. In German. 1.50
Drawings.

523-525
PB L 70436
FÖRSTER, C. (Inventor). Dye-mixing equipment for use in processing textiles. Ger. patent 745 606, May 15, 1944. Application F 88 706 VII/8a, dated Aug 15, 1940. In German. 1.50
Drawings.

526-528
PB L 70436
SIEMENS-SCHUCKERTWERKE A. G., BERLIN. Flexible individual-axle hollow shaft drive for railway vehicles. Ger. patent 745 607, May 15, 1944. Application S 124 201 II/20 b, dated Sep 16, 1936. Inventor: Eichelberger, W. In German. 1.50
Drawing.

529-531
PB L 70436
Body for railway car of light construction. Ger. patent 745 608, Nov 30, 1944. Application C 50 747 II/20 c, dated Jul 21, 1935. In German. 1.50
Drawings.

532-534
PB L 70436
Frame for triaxial railway trucks. Ger. patent 745 609, Dec 1, 1944. Application V 36 202 II/20 d, dated Oct 1, 1939. In German. 1.50
Drawings.

535-537
PB L 70436
Circuit for railroad crossing signal systems. Ger. patent 745 610, Nov 25, 1944. Application V 35 526 II/20 i, dated Dec 31, 1938. In German. 1.50
Wiring diagram.

538-540
PB L 70436
FERNSEH G.M.B.H., BERLIN. Device for reduction of interference in long-persistence kinoscope tubes caused by terrestrial magnetism. Ger. patent 745 611, May 15, 1944. Application F 83 894 VIIIa/21 a^1, dated Nov 3, 1937. Inventors: Wulfhekel, H. and Knick, U. In German. 1.50

541-543
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Process to filter or tune out a wide band spread of a frequency band. Ger. patent 745 612, May 16, 1944. Application S 135 216 VIIIa/21 a^2, dated Dec 30, 1938. Inventors: Bendel, H. and others. In German. 1.50

544-546
PB L 70436
ETABLISSEMENTS MERLIN & GERIN, S. A., GRENOBLE, FRANCE. Circuit breaker with arc extinction. Ger. patent 745 613, Mar 24, 1944. Application E 52 538 VIIIb/21 c, dated May 12, 1939. Inventor: Latour, A. In German. 1.50
Drawings.

547-549
PB L 70436
"ARCHIMEDES" GLASHÜTTER RECHENMASCHINENFABRIK REINHOLD PÖTHIG, GLASHÜTTE, GERMANY. Adding machine. Ger. patent 745 614, May 15, 1944. Application A 88 133 IXb/42 m, dated Sep 18, 1938. In German. 1.50
Drawings.

550-551
PB L 70436
G. KROMSCHRÖDER A. G., OSNABRÜCK, GERMANY. Coin box for vending machines. Ger. patent 745 615, Mar 21, 1944. Application K 141 804 IXb/43 b, dated Apr 12, 1936. In German. 1.50
Drawings.

552-554
PB L 70436
Milling machine. Ger. patent 745 616, Nov 27, 1944. Application W 105 149 Ib/49 b, dated Sep 4, 1934. In German. 1.50
Drawings.

555-556
PB L 70436
A. G. SAURER, ADOLF, ARBON, SWITZERLAND. Automotive frame for vehicles with individual wheel suspension and four-wheel drive. Ger. patent 745 617, Mar 16, 1944. Application A 83 201 II/63 c, dated Jun 5, 1937. Inventor: Schmid, G. In German. 1.50
Drawings.

557-559 PB L 70436 — MAIER, F. (Inventor). Door-sealing arrangement for automotive bodies. Ger. patent 745 615, May 15, 1944. Application M 146 370 II/63 c, dated Nov 2, 1939. In German. 1.50
Drawings.

560-563 PB L 70436 — DEUTLER, G. (Inventor). Process and equipment for packing fish fillets. Ger. patent 745 619, May 15, 1944. Application D 82 141 XII/61 a, dated Feb 20, 1940. In German. 1.50
Drawings.

564-565 PB L 70436 — MITTELDEUTSCHE STAHLWERKE A. G., RIESA, GERMANY. Bucket-wheel steam shovel. Ger. patent 745 620, Mar 16, 1944. Application M 134 860 V/84 d, dated Jun 19, 1936. In German. 1.50
Drawing.

566-567 PB L 70436 — ULRICH, G. (Inventor). Process for bucking and bleaching bast fibers. Ger. patent 745 621, Nov 18, 1944. Application U 14432 IVd/8 i, dated Sep 7, 1938. In German. 1.50

568-569 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Detergents. Ger. patent 745 622, May 15, 1944. Application I 65 692 IVd/8 i, dated Sep 27, 1939. Inventors: Nüsslein, J. and Pauser, K. In German. 1.50

572-573 PB L 70436 — CHEMISCHE FABRIK R. BAUMHEIER K. G., OSCHATZ, GERMANY. Apparatus for distillation of powdered coal. Ger. patent 745 624, Dec 4, 1944. Application C 54 769 IVc/12 p, dated Jan 25, 1938. Inventor: Schiedewitz, H. In German. 1.50

574-575 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Preparation of 5-pyrazolone-4-sulfonic acids. Ger. patent 745 625, Mar 16, 1944. Application I 64 798 IVc/12 p, dated Jun 10, 1939. Inventor: Zervas, P. In German. 1.50

576-577 PB L 70436 — CHINOIN GYOGYSZER ES VEGYESZETI TERMEKEK GYARA R. T. UJPEST, HUNGARY. Preparation of unsaturated derivatives of 2-methyl-2 oxy-3 halogen-tetrahydrofuran. Ger. patent 745 626, Mar 24, 1944. Application C 56 444 IVc/12 q, dated Apr 13, 1941. Inventor: König, R. In German. 1.50

578-579 PB L 70436 — KRUPP, FRIED., A. G., ESSEN, GERMANY. Steel for high pressure steam boilers, gas tanks etc. Ger. patent 745 627, Mar 16, 1944. Application K 129 536 VIa/18 d, dated Jan 23, 1931. Inventor: Rittershausen, F. In German. 1.50
Supplement to patent 737 678.

580-581 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Power control for trolley buses. Ger. patent 745 628, Mar 16, 1944. Application A 84 614 VIIId/20 l, dated Oct 24, 1937. Inventor: Hermle, H. In German. 1.50

582-585 PB L 70436 — AKTIEBOLAGET VENTURO, STOCKHOLM, SWEDEN. Teleprinter. Ger. patent 745 629, Mar 21, 1944. Application A 87 594 VIIIa/21 a^1, dated Jul 26, 1938. In German. 1.50
Drawings.

586-588 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Collector for motors with high peripheral speed. Ger. patent 745 631, May 15, 1944. Application L 102 567 VIIId/21 d^1, dated Dec 1, 1940. Inventor: Grosse, V. In German. 1.50
Drawings.

589-590 PB L 70436 — SIEMENS & HALSKE A. G., BERLIN. Vacuum tube grid arrangement. Ger. patent 745 632, Mar 24, 1944. Application S 136 253 VIIIc/21 g, dated Mar 11, 1939. Inventor: Harnisch, M. In German. 1.50
Drawing.

591-592 PB L 70436 — HENKEL & CIE G.M.B.H., DÜSSELDORF, GERMANY. Fat extraction from mycelial microorganisms. Ger. patent 745 633, May 15, 1944. Application H 160 290 IVa/23 a, dated Aug 3, 1939. Inventor: Zimmermann, A. In German. 1.50

593-594 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Cracking of hydrocarbon oils. Ger. patent 745 634, Mar 16, 1944. Application I 60 655 IVd/23 b, dated Feb 27, 1938. In German. 1.50
Supplement to patent 739 510

595-597 PB L 70436 — ANTON, FRANZ CO., ZEULENRODA, GERMANY. Elastic knit-wear for bandages, orthopedic stockings etc. and an attachment for knitting machines producing this material. Ger. patent 745 635 May 15, 1944. Application A 88 966 VII/25 a, dated Feb 12, 1939. In German. 1.50
Drawings.

598-600 PB L 70436 — VON HASSEL, G. (Inventor). Production of resistant organic fibers and fabrics. Ger. patent 745 636, May 15, 1944. Application H 158 169 IVe/29 b, dated Dec 25, 1938. In German. 1.50

601-602 PB L 70436 — JÄGER, R. and JÄGER, F. (Inventors). Cosmetics. Ger. patent 745 637, Mar 16, 1944. Application J 68 083 IVa/30 h, dated Oct 20, 1940. In German. 1.50

603-605 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Method and equipment for sorting ferromagnetic parts according to hardness. Ger. patent 745 638, May 15, 1944. Application L 96 856 IXb/42 k, dated Jan 17, 1939. Inventor: Armour, A. In German. 1.50
Drawings.

606-609 PB L 70436 — SIEMENS APPARATE UND MASCHINEN G.M.B.H., BERLIN. Air speed indicator. Ger. patent 745 639, May 15, 1944. Application S 138 764 IX/42 c, dated Sep 30, 1939. Inventor: Grüss, H. In German. 1.50
Drawings.

609-611 PB L 70436 — Method and instrument for measuring the angular velocity of

projectiles. Ger. patent 745 640, Nov 30, 1944. Application D 82 312 IXb/42 c, dated Mar 17, 1940. In German. 1.50

612-614 PB L 70436 SCHWARZ, KARL (Inventor). Method and attachment for sewing regimental color insignia on military blouses. Ger. patent 745 641, May 15, 1944. Application Sch 117 302 VII/52 a, dated Dec 24, 1938. In German. 1.50 Drawings.

615-616 PB L 70436 Preparation of mixtures of high-molecular polymethylene dicarboxylic acids. Ger. patent 745 642, Dec 4, 1944. Application I 64 558 IVd/12 c, dated May 10, 1939. In German. 1.50

617-618 PB L 70436 Preparation of α-halogenated alkyl ethers of tertiary alkylolamines. Ger. patent 745 643, Dec 4, 1944. Application Z 24 886 IVc/12 q, dated Nov 13, 1938. In German. 1.50

619-621 PB L 70436 PINTSCH, JULIUS, K. G., BERLIN. Control for R. R. crossing signal systems. Ger. patent 745 644, May 15, 1944. Application P 80 973 II/20 i, dated Jul 7, 1940. In German. 1.50 Wiring diagrams.

622-624 PB L 70436 PETER, W. (Inventor). Overhead-cable disconnecting switch. Ger. patent 745 645, Apr 25, 1944. Application P 79 429 VIIIb/21 c, dated Jul 14, 1939. In German. 1.50 Drawing.

625-626 PB L 70436 BROWN, BOVERI & CIE A. G., MANNHEIM, GERMANY. Commutator. Ger. patent 745 646, Mar 16, 1944. Application B 189 138 VIIId/21 d^1, dated Nov 21, 1939. Inventor: Fleischmann, K. In German. 1.50

627-628 PB L 70436 SIEMENS & HALSKE A. G., BERLIN. Ceramic dielectric capacitor. Ger. patent 745 647, Mar 24, 1944. Application S 141 199 VIIIc/21 g, dated Oct 7, 1937. Inventor: Müllbauer, M. In German. 1.50

629-630 PB L 70436 BAMAG-MEGUIN A. G., BERLIN. Process to eliminate the resulting gas liquor in gasification plants. Ger. patent 745 649, Mar 16, 1944. Application B 179 911 V/24 e, dated Sep 12, 1937. Inventor: Miedbrodt, C. In German. 1.50

631-632 PB L 70436 DR. F. RASCHIG G.M.B.H., LUDWIGSHAFEN, GERMANY. Paint for iron and its alloys. Ger. patent 745 648, May 15, 1944. Application R 102 102 IVc/22 g, dated Apr 17, 1938. In German. 1.50

633-634 PB L 70436 Continuous process and equipment for spinning, treating, cutting, and drying synthetic fibers for rayon staple production. Ger. patent 745 650, Nov 30, 1944. Application H 158 177 VII/29 a, dated Jan 3, 1939. In German. 1.50

635-637 PB L 70436 MIKUT, O. (Inventor). Stereoscopic and binocular equipment for eye examinations. Ger. patent 745 651, Mar 16, 1944. Application M 148 374 IXa/30 a, dated Aug 11, 1940. In German. 1.50

638-639 PB L 70436 OSTERNDORF, P. (Inventor). Process for casting plated ingots. Ger. patent 745 652, Mar 16, 1944. Application V 23 537 VIa/31 c, dated Apr 20, 1938. In German. 1.50

640-642 PB L 70436 SIEMENS SCHUCKERTWERKE A. G., BERLIN. Vacuum cleaner. Ger. patent 745 653, May 15, 1944. Application S 119 506 X/34 c, dated Aug 23, 1935. Inventor: Kühnel, C. In German. 1.50 Drawings.

643-645 PB L 70436 OPPOLD, AUGUST, BOHRER U., WERKZEUGFABRIK, OBERKOCHEN, GERMANY. Boring and milling tool for woodworking operations. Ger. patent 745 654, May 15, 1944. Application A 82 680 XII/38 e, dated Apr 18, 1937. Inventors: Oppold, A. and Arnold, J. In German. 1.50 Drawings.

646-648 PB L 70436 SEITZ-WERKE G.M.B.H., BAD KREUZNACH, GERMANY. Vending machine for post cards, postage stamps, etc., in roll form. Ger. patent 745 655, May 15, 1944. Application S 132 744 IXb/43 b, dated Jul 11, 1936. Inventor: Kiefer, T. In German. 1.50 Drawings.

649-651 PB L 70436 DAUM, AUGUST, DÜSSELDORF, GERMANY. Pasteboard strip for aligning V-shaped wire hooks for belt couplers. Ger. patent 745 656, May 15, 1944. Application D 78 311 XII/47 d, dated Jun 29, 1938. In German. 1.50 Drawings.

652-653 PB L 70436 PÖPPERLE, J. (Inventor). Preparation of mineral mixtures for flotation. Ger. patent 745 657, Mar 16, 1944. Application P 83 577 VIb/1 c, dated Dec 13, 1941. In German. 1.50 Supplement to patent 722 890.

654-655 PB L 70436 FÜRTHER TIEFBOHRANSTALT U. PUMPENBAU, FÜRTH, GERMANY. Guide for deep-boring tools. Ger. patent 745 658, Mar 21, 1944. Application P 89 895 VIb/5 a, dated Apr 27, 1941. Inventor: Kriegbaum, O. In German. 1.50 Drawings.

656-657 PB L 70436 KAHLE, H. (Inventor). Process for forming storage spaces at the bottom of bore holes by blasting (in oil drilling operations). Ger. patent 745 659, Mar 16, 1944. Application K 164 822 VIb/5 a, dated May 29, 1942. In German. 1.50 Drawings.

658-659 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Process for freeing fuels from salt. Ger. patent 745 660, May 15, 1944. Application B 176 445 VIb/10 b, dated Nov 29, 1936. Inventor: Pfaff, W. In German. 1.50

660-661 PB L 70436 Sealing of intermediate plates in fractionating columns. Ger. patent 745 661, Dec 4, 1944. Application I 70 857 IVa/12 a, dated Nov 13, 1941. In German. 1.50 Drawings.

662-663 PB L 70436 KREBS & CO., BERLIN. Process for cleaning electrolytes in electrolysis of alkali metal chlorides by the amalgam process. Ger. patent 745 662,

Apr 25, 1944. Application K 152 784 IVb/12 l, dated Dec 16, 1938. In German. 1.50

664-665 PB L 70436 ASCHAFFENBURGER ZELLSTOFFWERKE A. G., BERLIN. Evaporating process for dressing sulfite pulp waste liquor. Ger. patent 745 665, Mar 31, 1944. Application A 90 175 IVd/12 O, dated Sep 1, 1939. Inventor: Ogait, A. In German. 1.50

666-667 PB L 70436 Preparation of carboxylic acid anhydrides. Ger. patent 745 664, Nov 30, 1944. Application A 93 907 IVd/12 o, dated Aug 7, 1941. In German. 1.50

668-669 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Preparation of ketones of the sterol series. Ger. patent 745 665, May 5, 1944. Application I 54 671 IVc/12 o, dated Mar 29, 1936. Inventors: Bockmühl, M. and others. In German. 1.50

670-671 PB L 70436 SCHMEISSER, H. (Inventor). Typewriter ribbons. Ger. patent 745 666, Mar 21, 1944. Application Sch 119 130 XII/15 g, dated Aug 27, 1939. In German. 1.50

672-674 PB L 70436 L'AIR LIQUIDE, S. A. POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGE CLAUDE, PARIS, FRANCE. Process for decomposition of gas mixtures condensable with difficulty. Ger. patent 745 667, May 19, 1944. Application A 94 404 Ia/17 g, dated Nov 2, 1941. Inventor: Etienne, A. In German. 1.50
Drawing.

675-676 PB L 70436 SIEMENS SCHUCKERTWERKE A. G., BERLIN. Furnace with longitudinal air circulation Ger. patent 745 668, Mar 16, 1944. Application S 146 974 VIa/18 c, dated Sep 16, 1941. Inventor: Frankl, L. In German. 1.50
Drawing.

677-679 PB L 70436 AKTIENGESELLSCHAFT VORM. SKODAWERKE, PILSEN, CZECHOSLOVAKIA. Electric motor for street cars. Ger. patent 745 669, May 19, 1944. Application A 89 658 VIIId/20 l, dated Jun 8, 1939. Inventor: Chadzi, S. In German. 1.50
Drawings.

680-681 PB L 70436 SCHUMANN, W. (Inventor). Arrangement for producing short electric waves in a mercury arc lamp by grid control. Ger. patent 745 670, Mar 24, 1944. Application Sch 109 312 VIIIa/21 a^4, dated Feb 25, 1936. In German. 1.50

682-683 PB L 70436 SIEBENEICHER AND WEBER, DRESDEN, GERMANY. Acid dry electrolyte for batteries. Ger. patent 745 672, Mar 16, 1944. Application A 135 941 IVb/21 b, dated Feb 12, 1939. Inventor: Siebeneicher, R. In German. 1.50

684-686 PB L 70436 DURWACHTER, E. (Inventor). Brushes for electric motors. Ger. patent 745 673, May 19, 1944. Application D 84 889 VIIId/21 d^1, dated Apr 19, 1941. In German. 1.50
Drawings.

687-688 PB L 70436 SIEMENS PLANIAWERKE A. G. FÜR KOHLEFABRIKATE, BERLIN. Carbon commutator. Ger. patent 745 674, May 19, 1944. Application S 144 871 VIIId/21 d^1, dated Apr 9, 1941. Inventor: Conrath, P. In German. 1.50

689-691 PB L 70436 SIEMENS-SCHUCKERTWERKE A. G., BERLIN. Insulators for brushes of electric motors. Ger. patent 745 676, May 19, 1944. Application S 137 350 VIIId/21 d^1, dated Jun 7, 1939. Inventor: Peinecke, W. In German. 1.50
Drawings.

692-694 PB L 70436 LÜERS, G. (Inventor). Coil winding machine. Ger. patent 745 677, May 15, 1944. Application L 102 676 VIIIc/21 g, dated Dec 8, 1940. In German. 1.50
Drawings.

695-697 PB L 70436 Indirectly heated cathode for cathode ray tubes. Ger. patent 745 678, Nov 30, 1944. Application Sch 96 575 VIIIc/21 g, dated Jan 17, 1932. In German. 1.50
Drawing.

698-700 PB L 70436 STÖTER-TILLMANN, H. (Inventor). Apparatus for ash and dust removal from flue gas. Ger. patent 745 679, May 19, 1944. Application St 59 265 V/24 g, dated Dec 3, 1939. In German. 1.50
Drawings.

701-702 PB L 70436 AMME, HERMANN CARL, DÜSSELDORF, GERMANY. Metal heat exchanger operated with gaseous materials. Ger. patent 745 680, Mar 16, 1944. Application T 41166 V/24 k, dated Aug 3, 1942. In German. 1.50

703-704 PB L 70436 GESELLSCHAFT FÜR CHEMISCHE INDUSTRIE, BASIL, SWITZERLAND. Production of plastics. Ger. patent 745 682, May 5, 1944. Application G 95 941 IVc/39 b, dated Oct 6, 1935. In German. 1.50

705-706 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Preparation of dispersions or emulsions. Ger. patent 745 683, May 19, 1944. Application I 60 812 IVc/39 b, dated Mar 15, 1938. Inventors: Heuer, W. and Starck, W. In German. 1.50

707-709 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Preparation of polyamides from diamines and carbonic acid. Ger. patent 745 684, May 15, 1944. Application P 78 867 IVc/39 c, dated May 18, 1935. In German. 1.50

710-713 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Measuring device for simultaneous checking of several points on a work piece (such as shafts). Ger. patent 745 686, May 19, 1944. Application A 86 527 IXb/42 b, dated Apr 15, 1938. Inventor: Hermann, P. In German. 1.50
Drawings.

714-715
PB L 70436
KNÖKING, B. (Inventor). Rail-mounted device for measuring height of machinery, etc. Ger. patent 745 687, Mar 21, 1944. Application L 100 823 IXb/42 b, dated May 16, 1940. In German. 1.50
Drawing.

716-718
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Optical arrangement for measuring instruments with light ray indicator. Ger. patent 745 688, May 15, 1944. Application S 145 488 IXb/42 d, dated May 25, 1941. Inventor: Jenssen, G. In German. 1.50
Drawings.

719-722
PB L 70436
Oscillograph. Ger. patent 745 689, Dec 1, 1944. Application A 86 178 IXb/42 d, dated Mar 17, 1938. In German. 1.50
Wiring diagrams.

723-726
PB L 70436
ZEISS, CARL, CO., JENA, GERMANY. Photometer table adjustment to permit spectrum line measurements. Ger. patent 745 690, May 15, 1944. Application Z 27 027 IXa/42 h, dated Apr 21, 1942. Inventor: Keck, P. In German. 1.50
Drawings.

727-729
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Control for photoelectric measuring and testing devices. Ger. patent 745 691, May 19, 1944. Application S 143 912 IXa/42 h, dated Feb 7, 1941. Inventors: Liphardt, O. and Noack, H. In German. 1.50
Wiring diagrams.

730-732
PB L 70436
CSEREP, A. (Inventor). Frame for bifocal glasses. Ger. patent 745 692, May 30, 1944. Application C 56 206 IXa/42 h, dated Dec 25, 1940. In German. 1.50
Drawings.
Supplement to patent 702 214.

733-735
PB L 70436
KODAK A. G., BERLIN. Lens mounting. Ger. patent 745 693, May 19, 1944. Application K 158 207 IXa/42 h, dated Jul 25, 1940. Inventor: Crumrine, C. In German. 1.50
Drawings.

736-738
PB L 70436
SANDVOSS (Inventor). Deep sea observation device for use in ship salvage operations. Ger. patent 745 694, Mar 16, 1944. Application S 146 889 IXa/42 h, dated Sep 10, 1941. In German. 1.50
Drawings.

739-741
PB L 70436
MANNESMANNRÖHREN WERKE, DÜSSELDORF, GERMANY. Shear tests to determine the adhesive strength of plating on pipes. Ger. patent 745 695, Mar 21, 1944. Application M 148 093 IXb/42 k, dated Jul 2, 1940. Inventor: Duckwitz, C. In German. 1.50
Drawings.

742-744
PB L 70436
Resonance curve recorder. Ger. patent 745 696, Nov 30, 1944. Application S 136 309 IXb/42 k, dated Mar 15, 1939. In German. 1.50
Diagram.

745-748
PB L 70436
Apparatus for testing of materials having magnetic properties. Ger. patent 745 697, Dec 1, 1944. Application B 163 499 IXb/42 k, dated Jun 15, 1938. In German. 1.50
Wiring diagrams.

749-750
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Method for locating cavities in magnesium alloy castings. Ger. patent 745 698, May 19, 1944. Application I 68 176 IXb/42 k, dated Nov 7, 1940. Inventor: Nachtigall, E. In German. 1.50

751-753
PB L 70436
Hardness testing machine. Ger. patent 745 699, Nov 30, 1944. Application L 95 077 IXb/42 k, dated Jun 28, 1938. In German. 1.50
Drawing.

754-755
PB L 70436
Balancing machine (for crankshafts, etc.). Ger. patent 745 700, Nov 30, 1944. Application Sch 116 771 IXb/42 k, dated Oct 7, 1938. In German. 1.50
Drawings.

756-757
PB L 70436
RÖBIG, A. (Inventor). Valve tappet for internal combustion engines. Ger. patent 745 701, Mar 16, 1944. Application R 112 292 Ia/46 b^1, dated Jul 13, 1940. In German. 1.50

758-759
PB L 70436
Four-cycle sleeve valve internal combustion engine with moment-applied ignition. Ger. patent 745 702, Nov 27, 1944. Application D 75 989 Ia/46 a^2, dated Aug 21, 1937. In German. 1.50
Drawings.

760-762
PB L 70436
HAMPEL, H. (Inventor). Anode for electrolytic baths. Ger. patent 745 703, May 15, 1944. Application H 161 644 VIa/48 a, dated Feb 20, 1940. In German. 1.50
Drawings.

763-764
PB L 70436
Colorless oxide layers for aluminum and aluminum alloys. Ger. patent 745 704, Dec 6, 1944. Application V 37 636 VIa/48 d, dated Apr 18, 1941. In German. 1.50

765-766
PB L 70436
Link for machine gun ammunition belts. Ger. patent 745 705, Nov 30, 1944. Application St 60 719 XI/72 d, dated May 13, 1941. In German. 1.50

767-769
PB L 70436
Cartridge case testing device. Ger. patent 745 706, Nov 30, 1944. Application R 110 194 XI/72 d, dated May 31, 1941. In German. 1.50
Drawings.

770-771
PB L 70436
VEREINIGTE KRATZENFABRIKEN G.M.B.H., AACHEN, GERMANY. Carding machine. Ger. patent 745 707, Mar 21, 1944. Application V 38 206 VII/76 b, dated Nov 8, 1941. In German. 1.50
Drawings.
Supplement to patent 741 208.

772-773
PB L 70436
SÄCHSISCHE TEXTILMASCHINENFABRIK CHEMNITZ, GERMANY. Pressure load arrangement for upper rollers of textile drawing frames. Ger. patent 745 708, Mar 21, 1944. Application S 136 950 VII/76 c, dated May 4, 1939. Inventor: Quass, K. In German. 1.50
Drawings.

774-775
PB L 70436
BECK, A. (Inventor). Safety nut for clamping bolts of shaking troughs. Ger. patent 745 709, Mar 21, 1944. Application B 198 107 XI/81 e, dated May 1, 1942. In German. 1.50
Drawings.

776-777
PB L 70436
ZEITZER EISENGIESSEREI UND MASCHINENBAU A. G., ZEITZ, GERMANY. Conveyor system for loading briquettes in railway cars. Ger. patent 745 710, Mar 21, 1944. Application Z 25 954 XI/81 e, dated Aug 18, 1940. Inventor: Schmidt, W. In German. 1.50
Drawings.

778-779
PB L 70436
BADISCHE UHRENFABRIKEN G.M.B.H., FURTWANGEN, GERMANY. Clockwork for chimes. Ger. patent 745 711, Mar 21, 1944. Application B 190 234 IXb/83 a, dated Mar 24, 1940. Inventors: Paul, W. and Trenkle, E. In German. 1.50
Drawing.

780-782
PB L 70436
SIEMENS & HALSKE A. G., BERLIN. Method for pulse duration measurements by means of cathode ray tubes. Ger. patent 745 712, May 15, 1944. Application S 130 394 IXb/83 d, dated Jan 15, 1938. Inventors: Fülling, H. and Breitenbruch, E. In German. 1.50
Wiring diagrams.

783-784
PB L 70436
GODESIA-WERK G.M.B.H., BAD GODESBERG, GERMANY. Roaster for gases with a high calorific value. Ger. patent 745 713, Mar 21, 1944. Application G 88 858 VIb/4 g, dated Sep 30, 1934. In German. 1.50
Drawings.
Supplement to patent 684 223.

785-787
PB L 70436
SOCIÉTÉ DE PROSPECTION ELECTRIQUE PROCEDES SCHLUMBERGER, PARIS, FRANCE. Projectile for piercing bore hole linings. Ger. patent 745 714, May 19, 1944. Application S/37 585 VIb/5a, dated Jun 25, 1939. Inventor: Schlumberger, H. In German. 1.50
Drawings.

788-790
PB L 70436
Strip rolling mill. Ger. patent 745 715, Dec 1, 1944. Application M 132 203 Ib/7a, dated Sep 28, 1935. In German. 1.50
Drawings.

791-792
PB L 70436
METALLGESELLSCHAFT A. G., FRANKFURT AM MAIN, GERMANY. Telecommunication lines with increased inductance. Ger. patent 745 716, Mar 24, 1944. Application M 145 130 VIIIb/21 c, dated May 20, 1939. Inventor: Wassermann, G. In German. 1.50
Drawings.

793-794
PB L 70436
Connecting terminal for control and signal leads of integrator devices. Ger. patent 745 717, Dec 1, 1944. Application S 141 404 VIIIb/21 c, dated Jun 23, 1940. In German. 1.50
Diagrams.

795-796
PB L 70436
I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Binding agent (for plywood etc.) Ger. patent 745 718, Mar 21, 1944. Application I 60 833 IVd/22 i, dated Mar 17, 1936. Inventors: Jahrstorfer, M. and Scheuermann, H. In German. 1.50

797-799
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WAGNER, K. (Inventor). Pressure casting machine for magnesium and its alloys. Ger. patent 745 719, May 19, 1944. Application W 98 362 VIa/31 c, dated Mar 20, 1938. Inventor: Wagner, K. In German. 1.50
Drawings.
Supplement to patent 706 609.

800-802
PB L 70436
Apparatus for measuring explosive powders (such as tracer compositions). Ger. patent 745 720, Nov 30, 1944. Application D 78 003 IXb/42 e, dated May 20, 1938. In German. 1.50
Drawings.

803-804
PB L 70436
LINDNER, R. (Inventor). Device for cleaning electrodes used in controlling the composition of liquids. Ger. patent 745 721, Mar 21, 1944. Application L 98 076 IXb/42 l, dated May 26, 1939. In German. 1.50
Drawings.

805-806
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ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Gas supply regulator for flue-gas testers. Ger. patent 745 722, Mar 21, 1944. Application A 82 509 IXb/42 l, dated Apr 3, 1937. Inventor: Heidtkamp, G. In German. 1.50
Drawing.

807-809
PB L 70436
ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Apparatus for hardening tips of steel needles, etc. Ger. patent 745 723, May 19, 1944. Application A 87 567 VIa/18 c, dated Jul 23, 1938. Inventor: Kugler, W. In German. 1.50
Drawings.

810-811
PB L 70436
ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Electric insulating material. Ger. patent 745 724, Mar 24, 1944. Application A 86 074 VIIIb/21 c, dated Mar 9, 1938. Inventor: Fuoss, R. In German. 1.50

812-813
PB L 70436
ZIEGLER, L. (Inventor). Sleeve joint for plastic insulating tubes with several channels for bare conduits. Ger. patent 745 725, Mar 24, 1944. Application Z 25 111 VIIIb/21 c, dated Feb 26, 1939. In German. 1.50
Drawings.

814-815
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Slip-ring coupling. Ger. patent 745 726, Dec 1, 1944. Application L 102 762 VIIIb/21 c, dated Dec 17, 1940. In German. 1.50
Drawings.

817-818
PB L 70436
GEYER, CHRISTIAN CO., NÜRNBERG, GERMANY. Thermo magnetic release mechanism for high voltage switches. Ger. patent 745 727, Mar 24, 1944. Application G 103 642 VIIIb/21 c, dated Jun 1, 1941. In German. 1.50
Wiring diagrams.

819-820
PB L 70436
NAAMLOOSE VENNOTSCHAP MAATSCHAPPIJ TOT BEHEER EN EXPLOITATIE VAN OCTROOIEN, THE HAGUE, HOLLAND. Slip-ring insulation for electric motors. Ger. patent 745 728, May 19, 1944. Application N 400 27 VIIId/21 d^1, dated Nov 12, 1936. Inventor: Baird, F. In German. 1.50

821-822
PB L 70436
NEUBERGER, JOSEPH, CO., MUNICH, GERMANY. Cell for electrolytic condenser. Ger. patent 745 729, Mar 21, 1944. Application N 40 231 VIIIc/21 g, dated Jan 7, 1937. Inventors: Thoma, M. and Raabe, A. In German. 1.50

823-824 PB L 70436 SIEGERT, H. (Inventor). Low-cost production of metallic bronze powder by addition of metallic oxides. Ger. patent 745 732, Mar 24, 1944. Application S 127 815 IVb/22 f, dated Jun 29, 1937. In German. 1.50

825-827 PB L 70436 FERNSEH G.M.B.H., BERLIN. Electron multiplier for high output current. Ger. patent 745 730, May 22, 1944. Application F 84 593 VIIIc/21 g, dated Mar 5, 1938. Inventor: Flechsig, W. In German. 1.50
Drawing.

828-830 PB L 70436 ELECTRICAL AND MUSICAL INDUSTRIES LTD., HAYES, ENGLAND. Vacuum tubes with photoelectric electrode. Ger. patent 745 731, May 22, 1944. Application E 49 215 VIIIc/21 g, dated Jan 16, 1937. Inventors: Lubszynski, H. and Freeman, G. In German. 1.50
Drawings.

831-832 PB L 70436 Projection equipment for test and measuring purposes. Ger. patent 745 733, Nov 27, 1944. Application L 97 299 IXb/42 b, dated Mar 3, 1939. In German. 1.50

833-834 PB L 70436 SIEMENS SCHUCKERTWERKE A. G., BERLIN. Ampere and kilowatt hour counter. Ger. patent 745 734, Mar 24, 1944. Application X 118 335 IXb/42 d, dated May 18, 1935. Inventor: Bilz, W. In German. 1.50

835-837 PB L 70436 Automatic spacer for bookkeeping machines. Ger. patent 745 735, Nov 30, 1944. Application M 126 944 IXb/42 m, dated Mar 22, 1938. In German. 1.50
Drawing.
Supplement to patent 661 498.

838-840 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Coin machine for electricity, water, gas, etc. (for collecting fixed charges). Ger. patent 745 736, May 19, 1944. Application A 73 784 IXb/43 b, dated Aug 1, 1934. In German. 1.50
Drawing.

841-842 PB L 70436 RÖBIG, A. (Inventor). Valve tappet for internal combustion engines. Ger. patent 745 737, Apr 25, 1944. Application R 106 505 Ia/46 b^1, dated Nov 30, 1939. In German. 1.50
Drawing.
Supplement to patent 579 515.

843-855 PB L 70436 DEUTSCHE VEREINIGTE SCHUHMASCHINEN G.M.B.H., FRANKFURT AM MAIN, GERMANY. Automatic shoe lasting machine. Ger. patent 745 738, May 19, 1944. Application U 13 549 VII/71 c, dated Sep 15, 1936. In German. 1.50
Drawings.

856-857 PB L 70436 DORTMUND-HOERDER HÜTTENVEREIN A. G., DORTMUND, GERMANY. Process for rolling U-shaped steel sheet piling. Ger. patent 745 739, Apr 25, 1944. Application D 76 341 Ib/7a, dated Oct 14, 1937. Inventor: Meiser, J. In German. 1.50
Drawings.

858-859 PB L 70436 TELEFUNKEN GESELLSCHAFT FÜR DRAHTLOSE TELEGRAPHIE M. B. H., BERLIN. Television receiver. Ger. patent 745 741, Mar 31, 1944. Application T 47 153 VIIIa/21 a^1, dated Jul 10, 1936. Inventor: Wolff, M. In German. 1.50
Drawing.

860-861 PB L 70436 VEREINIGTE GLÜHLAMPEN UND ELEKTRICITÄTS A. G., BUDAPEST, HUNGARY. Production of oxide cathodes. Ger. patent 745 742, Mar 31, 1944. Application V 33 639 VIIIc/21 g, dated Mar 10, 1937. Inventor: Winter, E. In German. 1.50

862-863 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Production of high-viscosity lubricants. Ger. patent 745 743 Apr 25, 1944. Application I 54 143 IVd/23 b, dated Jan 25, 1936. Inventors: Pier, M. and Eisenhut, A. In German. 1.50

864-866 PB L 70436 MEYER, H. (Inventor). Rolling mill for thermoplastics. Ger. patent 745 744, May 26, 1944. Application M 145 719 XII/59 a, dated Jul 29, 1939. In German. 1.50
Drawings.

867-879 PB L 70436 SIEMENS & HALSKE A. G., BERLIN. Punch-card controlled calculating machine. Ger. patent 745 745, May 24, 1944. Application S83 473 IXb/43 a, dated Jan 5, 1928. In German. 1.50
Drawing and wiring diagrams.

880-882 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN AND LÜBECKER MASCHINENBAU GES., LÜBECK, GERMANY. Control for bracket jib steam shovel. Ger. patent 745 746, May 19, 1944. Application A 72 496 V/84 d, dated Feb 15, 1934. Inventors: Engel, W. and Dopp, P. In German. 1.50

883-885 PB L 70436 COLLIERY ENGINEERING LTD., SHEFFIELD, ENGLAND. Multi-stage air-settling machine, (for coal processing). Ger. patent 745 747, Mar 31, 1944. Application C 52 837 VIb/1a, dated May 22, 1937. In German. 1.50
Drawings.

886-887 PB L 70436 C. A. SCHAEFER K. G., HANNOVER, GERMANY. Beacon with two light sources. Ger. patent 745 748, Mar 31, 1944. Application Sch 117 936, dated Mar 11, 1939. Inventor: Bauer, C. In German. 1.50
Drawings.

888-890 PB L 70436 GEWERKSCHAFT VER. KLOSTERBUSCH, GERBEDE, GERMANY. Mining tool for coal and other minerals. Ger. patent 745 749, May 26, 1944. Application G 103 817 VIb/5 b, dated Jul 19, 1941. Inventor: Sonnenschein, K. In German. 1.50
Drawings.

891-893 PB L 70436 C. H. WEISSBACH K. G., CHEMNITZ, GERMANY. Guide arrangement for fabric stretching and drying machines. Ger. patent 745 740, May 19, 1944. Application W 106 467 VII/8 b, dated Nov 1, 1939. Inventor: Siehert, M. In German. 1.50
Drawings.
Supplement to patent 736 189.

894-896 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Azo dye process for cellulose esters. Ger. patent 745 751, May 5, 1944.

Application I 55 758 IVd/8 m, dated Aug 15, 1936. In German. 1.50

897-899 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Production of porous materials suitable for adsorption or catalytic purposes. Ger. patent 745 762, May 5, 1944. Application I 57 630 IVb/12 g, dated Jul 16, 1933. Inventor: Stöwener, F. In German. 1.50

900-902 PB L 70436 WEBB & GALL, NILGIRIS, BRITISH INDIA. Printing plates. Ger. patent 745 753, May 19, 1944. Application W 96 797 IVa/15 b, dated Jun 29, 1935. In German. 1.50

903-906 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Semi-automatic control for trolley bus power units. Ger. patent 745 754, May 26, 1944. Application L 100 699 VIIId/20 l, dated Apr 26, 1940. Inventor: Plössl, J. In German. 1.50
Supplement to patent 741 830.

906-907 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Motor drive for tuning high frequency devices. Ger. patent 745 755, Apr 25, 1944. Application I 63 904 VIIIa/21 a^4, dated Feb 24, 1939. Inventor: Forstron, E. In German. 1.50
Drawing.

908-909 PB L 70436 ZIEHL-ABEGG ELEKTRICITÄTS G.M.B.H., BERLIN. Multiple collector ring for D. C. motor for radio-technical purposes. Ger. patent 745 756, Apr 25, 1944. Application Z 21 686 VIIId/21 d^1, dated Apr 15, 1934. In German. 1.50

910-913 PB L 70436 HANS-BODO WILLERS, BERLIN. Electro-mechanical impedance element. Ger. patent 745 757, May 22, 1944. Application I 55 993 VIIIc/21 g, dated Sep 23, 1936. In German. 1.50
Wiring diagrams.

914-915 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Preparation of monoazo dyes. Ger. patent 745 758, May 26, 1944. Application I 59 669 IVd/22 a, dated Nov 21, 1937. Inventor: Knight, A. In German. 1.50

916-917 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Preparation of azo dyes. Ger. patent 745 759, May 26, 1944. Application I 58 112 IVd/22 a, dated May 27, 1937. Inventor: Cliffe, W. In German. 1.50

918-922 PB L 70436 MILLER, M. (Inventor). Flat loop knitting machine with auxiliary needles. Ger. patent 745 760, May 19, 1944. Application M 138 259 VII/15 a, dated Aug 13, 1936. In German. 1.50
Drawings.

923-925 PB L 70436 SCHUBERT & SULZER MASCHINENFABRIK A. G., CHEMNITZ, GERMANY. Drive for thread guide rails of flat loop knitting machines. Ger. patent 745 761, May 19, 1944. Application Sch 117 125 VII/25 a, dated Dec 1, 1938. In German. 1.50
Drawings.
Supplement to patent 743 936.

926-932 PB L 70436 MILLER, M. (Inventor). Flat loop knitting machine with automatic double-edge device. Ger. patent 745 762, May 24, 1944. Application M 144 118 VII/25 a, dated Aug 13, 1936. In German. 1.50
Drawings.

933-935 PB L 70436 SCHÖNFELD, P. (Inventor). Process for production of warps with interwoven elastic thread. Ger. patent 745 643, May 19, 1944. Application Sch 118 843 VII/25 a, dated Jul 11, 1939. In German. 1.50
Drawing.
Supplement to patent 688 831.

936-940 PB L 70436 MILLER, M. (Inventor). Production of lengths, heels, and feet of stockings on a flat loop-knitting machine. Ger. patent 745 765, May 22, 1944. Application M 144 117 VII/25 a, dated Aug 13, 1936. In German. 1.50
Drawings.

941-944 PB L 70436 WILDT & CO., LTD., ADELAIDE WORKS, LEICESTER, ENGLAND. Pattern or control device for knitting machines. Ger. patent 745 767, May 22, 1941. Application W 105 482 VII/25 a, dated Apr 13, 1939. In German. 1.50
Drawings.

945-946 PB L 70436 Device for cutting continuous strands of synthetic yarn. Ger. patent 745 768, Dec 1, 1944. Application W 108 566 VII/29 a, dated Feb 20, 1941. In German. 1.50
Drawing.

947-948 PB L 70436 DR. ALEXANDER WACKER GES. FÜR ELEKTROCHEMISCHE INDUSTRIE ET AL MUNICH, GERMANY. Process for coating bandages, etc. with adhesive layers. Ger. patent 745 769, May 19, 1944. Application W 108 795 IXa/30 d, dated Mar 26, 1941. Inventors: Schmitz, H. and Dewald, F. In German. 1.50

949-951 PB L 70436 PENZLER, K. (Inventor). Clamp to prevent hemorrhages in tooth extractions. Ger. patent 745 770, May 19, 1944. Application P 80 497 IXa/30 d, dated Mar 15, 1940. In German. 1.50
Drawings.

952-953 PB L 70436 BUCHANAN, J. (Inventor). Hot water bottle. Ger. patent 745 771, Apr 25, 1944. Application B 184 677 IXa/30 d, dated Sep 20, 1938. In German. 1.50
Drawings.

954-956 PB L 70436 OYSTER, E. (Inventor). Sand-mold machine. Ger. patent 745 772, May 19, 1944. Application O 24 274 VIa/31 b, dated Aug 13, 1939. In German. 1.50

957-961 PB L 70436 CORNING GLASS WORKS, CORNING, NEW YORK. Process and equipment for manufacture of foam glass. Ger. patent 745 773, May 26, 1944. Application C 54 510 VIb/32 b, dated Nov 6, 1936. Inventor: Willis, S. In German. 1.50
Drawings.

962-965 PB L 70436 DEUTSCHE TELEPHONWERKE UND KABEL-INDUSTRIE A. G., BERLIN. Box-type level. Ger. patent 745 774, May 19, 1944. Application D 79 747 IXb/42 c, dated Jan 26, 1939. Inventor: Wilhelmi, H. In German. 1.50

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE

Information on the following patents can be obtained from the U. S. Patent Office, Washington 25, D. C.

The "Groups" appearing after the patent abstracts are based on the Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Executive Office of the President, Bureau of the Budget.

Official Gazette, January 6, 1948

By an instrument recorded in the United States Patent Office on Nov. 4, 1947, the American Chemical Paint Co., Ambler, Pa., has granted to the Government and the People of the United States of America an irrevocable, royalty-free right and license to use the methods and to make and use, but not to sell, the compositions of the following United States Patents relating to "Methods and Compositions for Killing Weeds" and any division, continuation, continuation-in-part, or reissue thereof. The term "People" is to be understood to include sole individuals, firms, corporations, and other business associations and institutions (whether for profit or not).

The American Chemical Paint Co. will, upon request, grant a license on a royalty basis to any responsible party desiring to manufacture and sell the patented compositions of these four patents. Royalty terms are on file with the Register.

PAT. 2,390,941. Methods and compositions for killing weeds. Patented Dec 11, 1945. Group 28-33-81. Reg. No. 8,981.

PAT. 2,394,916. Methods and compositions for killing weeds. Patented Feb 12, 1946. Group 28-33-81. Reg. No. 8,982.

PAT. 2,396,513. Methods and compositions for killing weeds. Patented Mar 12, 1946. Group 28-33-81. Reg. No. 8,983.

PAT. 2,412,510. Methods and compositions for killing weeds. Patented Dec 10, 1946. Group 28-33-81. Reg. No. 8,984.

These four patents provide methods and compositions for permanently killing the roots and tops of such weeds as poison ivy, wild garlic, bindweed, etc. Numerous compositions are set forth in detail in the patents, one example of which is a solution containing trichloro-phenoxy-acetic acid, water, and a wetting, dispersing, and emulsifying agent. The trichloro-phenoxyacetic acid comprises at least .04% of the solution by weight. The compositions may be applied in several ways, the most advantageous and preferred way being by spraying the leaves of the weeds. The compositions penetrate the conducting tissue of the weeds and follow the normal path from the leaves to the roots. The compositions have an accumulative effect on plants so that by spraying half-strength solutions on two occasions, two or three weeks apart, the weed will be killed. It is claimed that these compositions are more effective than those previously used; they may be applied to wide areas at relatively small expense; and will not render the soil sterile. The compositions may be safely handled and are not harmful to human beings or animals.

PAT. 2,012,723. Winding reel for cables. Patented Sept 10, 1935.
An automatic spring-winding reel adapted to take up slack in cords of plugged-in electric appliances to eliminate tangling. The reel is contained within a casing and turns on a bearing sleeve by means of a helical spring, allowing the cord to be extended or taken up as the iron, for instance, is moved back and forth, or to be set for a predetermined extension. One opening in the casing receives the plug-in end of the cord, another opening guides the cord of the appliance. A spring clip permits the casing to be detachably fastened to the edge of a table or other suitable support. (Owner) Claude M. Murphy, R. R. 1, Elk, Wash. Groups 35-69; 36-21. Reg. No. 8,985.

PAT. 2,427,696. Welding machine. Patented Sept 23, 1947. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757).
This invention relates to a carriage for a welding machine which can be used with or without tracks and spaced as desired from the work. A carriage, mounted on four motor-driven wheels, carries a casing which supports the welding head. An elongated member has attached to it a guide arm mounted on rollers and pivotally attached to the casing by links. On the right side of casing are two casters so mounted that they may be held horizontally in inoperative position or vertically in operative position. In operation, the device is placed on the deck, the casters placed in operative position, raising the two wheels on one side of carriage off the deck, and the guide arm set at an angle to cause the device to move toward the work. By use of casters, instead of all four wheels, the device can be turned around curves and corners. On tracks, casters are moved to inoperative position. (Owner) Louis Trombetta, 3667 Paulding Ave., Bronx 67, N. Y. Groups 35-42; 36-19. Reg. No. 8,986.

PAT. 2,425,547. Garment hanger. Patented Aug 12, 1947.
A metallic or plastic coat hanger, made of hollow tubing for holding moth-proofing materials. Openings are provided in tubing wall through which the moth-proofing vapors escape to the garment. The hanger is sloping T-shaped and has an attached hook for hanging on a rod. It may be used alone as a coat hanger or may have a straight tubular skirt or trouser bar inserted between and frictionally engaging the two ends so that the tubular passage for moth-proofing material is made continuous. When skirt or trouser support is removed, ends of the tubular passage are closed with fitted plugs. (Owner) Mrs. Hazel Marie Lipsitz, 5036 Sheridan Rd., Chicago 40, Ill. Groups 33-72; 39-81; 40. Reg. No. 8,987.

PAT. 2,264,664. Yarn holder. Patented Dec 2, 1941.
A single sheet of transparent material, such as celluloid, is rolled to form a cylindrical holder long enough to accommodate knitting needles. It is carried horizontally by a handle of woven cords fastened at each end of cylinder. Discs fit into ends of holder. A cord laces edges of the cylindrical holder together and, at each end, fastens into an aperture in the disc, to form a hinge enabling the end to be swung open for insertion of yarn balls. Each disc is held in place by a cord tied at the top to the cylinder. Along upper side of the cylinder are holes through which the ends of yarn are pulled. (Owner) Mrs. Hazel Marie Lipsitz, 5036 Sheridan Rd., Chicago 40, Ill. Groups 39-81; 40. Reg. No. 8,988.

PAT. 2,389,468. Fastener for duct forms and the like. Patented Nov 20, 1945. Groups 33-73; 34-95. Reg. No. 8,989.

PAT. 2,396,030. Fastener for paper forms and the like. Patented Mar 5, 1946. Groups 33-73; 34-95. Reg. No. 8990.

These two patents show fasteners (stamped from sheet

776-777 PB L 70436 — KRITZER EISENGIESSEREI UND MASCHINENBAU A. G., KRITZ, GERMANY. Conveyor system for loading briquettes in railway cars. Ger. patent 745 710, Mar 21, 1944. Application Z 28 984 XI/81 c, dated Aug 18, 1940. Inventor: Schmidt, W. In German. 1.50
Drawings.

778-779 PB L 70436 — BADISCHE [illegible] G.M.B.H., FURTWANGEN, GERMANY. Clockwork for chimes. Ger. patent 745 711, Mar 21, 1944. Application B 190 234 IXb/83 a, dated Mar 24, 1940. Inventors: Paul, W. and Trenkle, E. In German. 1.50
Drawing.

780-782 PB L 70436 — SIEMENS & HALSKE A. G., BERLIN. Method for pulse duration measurements by means of cathode ray tubes. Ger. patent 745 712, May 19, 1944. Application S 130 394 IXb/83 d, dated Jan 15, 1938. Inventors: Fülling, H. and Breitenbruch, E. In German. 1.50
Wiring diagrams.

783-784 PB L 70436 — GODESIA-WERK G.M.B.H., BAD GODESBERG, GERMANY. Roaster for gases with a high calorific value. Ger. patent 745 713, Mar 21, 1944. Application G 88 858 VIb/4 g, dated Sep 30, 1934. In German. 1.50
Drawings.
Supplement to patent 684 223.

785-787 PB L 70436 — SOCIÉTÉ DE PROSPECTION ELECTRIQUE PROCEDES SCHLUMBERGER, PARIS, FRANCE. Projectile for piercing bore hole linings. Ger. patent 745 714, May 19, 1944. Application S/37 585 VIb/5a, dated Jun 25, 1939. Inventor: Schlumberger, H. In German. 1.50
Drawings.

788-790 PB L 70436 — Strip rolling mill. Ger. patent 745 715, Dec 1, 1944. Application M 132 203 Ib/7a, dated Sep 28, 1935. In German. 1.50
Drawings.

791-792 PB L 70436 — METALLGESELLSCHAFT A. G., FRANKFURT AM MAIN, GERMANY. Telecommunication lines with increased inductance. Ger. patent 745 716, Mar 24, 1944. Application M 145 130 VIIIb/21 c, dated May 20, 1939. Inventor: Wassermann, G. In German. 1.50
Drawings.

793-794 PB L 70436 — Connecting terminal for control and signal leads of integrator devices. Ger. patent 745 717, Dec 1, 1944. Application S 141 404 VIIIb/21 c, dated Jun 23, 1940. In German. 1.50
Diagrams.

795-796 PB L 70436 — I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Binding agent (for plywood etc.) Ger. patent 745 718, Mar 21, 1944. Application I 60 833 IVd/22 i, dated Mar 17, 1936. Inventors: Jahrstorfer, M. and Scheuermann, H. In German. 1.50

797-799 PB L 70436 — WAGNER, K. (Inventor). Pressure casting machine for magnesium and its alloys. Ger. patent 745 719, May 19, 1944. Application W 98 362 VIa/31 c, dated Mar 20, 1938. Inventor: Wagner, K. In German. 1.50
Drawings.
Supplement to patent 706 609.

800-802 PB L 70436 — Apparatus for measuring explosive powders (such as tracer compositions). Ger. patent 745 720, Nov 30, 1944. Application D 78 008 IXb/42 e, dated May 20, 1938. In German. 1.50
Drawings.

803-804 PB L 70436 — LINDNER, R. (Inventor). Device for cleaning electrodes used in controlling the composition of liquids. Ger. patent 745 721, Mar 21, 1944. Application L 98 076 IXb/42 l, dated May 26, 1939. In German. 1.50
Drawings.

805-806 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Gas supply regulator for flue-gas testers. Ger. patent 745 722, Mar 21, 1944. Application A 82 509 IXb/42 l, dated Apr 3, 1937. Inventor: Heidtkamp, G. In German. 1.50
Drawing.

807-809 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Apparatus for hardening tips of steel needles, etc. Ger. patent 745 723, May 19, 1944. Application A 87 567 VIa/18 c, dated Jul 23, 1938. Inventor: Kugler, W. In German. 1.50
Drawings.

810-811 PB L 70436 — ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Electric insulating material. Ger. patent 745 724, Mar 24, 1944. Application A 86 074 VIIIb/21 c, dated Mar 9, 1938. Inventor: Fuoss, R. In German. 1.50

812-813 PB L 70436 — ZIEGLER, L. (Inventor). Sleeve joint for plastic insulating tubes with several channels for bare conduits. Ger. patent 745 725, Mar 24, 1944. Application Z 25 111 VIIIb/21 c, dated Feb 26, 1939. In German. 1.50
Drawings.

814-815 PB L 70436 — Slip-ring coupling. Ger. patent 745 726, Dec 1, 1944. Application L 102 762 VIIIb/21 c, dated Dec 17, 1940. In German. 1.50
Drawings.

817-818 PB L 70436 — GEYER, CHRISTIAN CO., NÜRNBERG, GERMANY. Thermo magnetic release mechanism for high voltage switches. Ger. patent 745 727, Mar 24, 1944. Application G 103 642 VIIIb/21 c, dated Jun 1, 1941. In German. 1.50
Wiring diagrams.

819-820 PB L 70436 — NAAMLOOSE VENNOTSCHAP MAATSCHAPPIJ TOT BEHEER EN EXPLOITATIE VAN OCTROOIEN, THE HAGUE, HOLLAND. Slip-ring insulation for electric motors. Ger. patent 745 728, May 19, 1944. Application N 400 27 VIIId/21 d1, dated Nov 12, 1936. Inventor: Baird, F. In German. 1.50

821-822 PB L 70436 — NEUBERGER, JOSEPH, CO., MUNICH, GERMANY. Coil for electrolytic condenser. Ger. patent 745 729, Mar 21, 1944. Application N 40 231 VIIIc/21 g, dated Jan 7, 1937. Inventors: Thoma, M. and Raabe, A. In German. 1.50

823-824 PB L 70436 SIEGERT, H. (Inventor). Low-cost production of metallic bronze powder by addition of metallic oxides. Ger. patent 745 732, Mar 24, 1944. Application S 127 815 IVb/32 f, dated Jun 29, 1937. In German. 1.50

825-827 PB L 70436 FERNSEH G.M.B.H., BERLIN. Electron multiplier for high output current. Ger. patent 745 730, May 22, 1944. Application F 84 583 VIIIc/21 g, dated Mar 5, 1936. Inventor: Flechsig, W. In German. 1.50
Drawing.

828-830 PB L 70436 ELECTRICAL AND MEDICAL INDUSTRIES LTD., HAYES, ENGLAND. Vacuum tubes with photoelectric electrode. Ger. patent 745 731, May 22, 1944. Application E 49 215 VIIIc/21 g, dated Jan 16, 1937. Inventors: Lubszynski, H. and Freeman, G. In German. 1.50
Drawings.

831-832 PB L 70436 Projection equipment for test and measuring purposes. Ger. patent 745 733, Nov 27, 1944. Application L 97 299 IXb/42 b, dated Mar 3, 1939. In German. 1.50

833-834 PB L 70436 SIEMENS SCHUCKERTWERKE A. G., BERLIN. Ampere and kilowatt hour counter. Ger. patent 745 734, Mar 24, 1944. Application X 118 335 IXb/42 d, dated May 18, 1935. Inventor: Bilz, W. In German. 1.50

835-837 PB L 70436 Automatic spacer for bookkeeping machines. Ger. patent 745 735, Nov 30, 1944. Application M 126 944 IXb/42 m, dated Mar 22, 1938. In German. 1.50
Drawing.
Supplement to patent 661 498.

838-840 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Coin machine for electricity, water, gas, etc. (for collecting fixed charges). Ger. patent 745 736, May 19, 1944. Application A 73 784 IXb/43 b, dated Aug 1, 1934. In German. 1.50
Drawing.

841-842 PB L 70436 RÖSIG, A. (Inventor). Valve tappet for internal combustion engines. Ger. patent 745 737, Apr 25, 1944. Application R 106 506 Ia/46 b[1], dated Nov 30, 1939. In German. 1.50
Drawing.
Supplement to patent 679 515.

843-855 PB L 70436 DEUTSCHE VEREINIGTE SCHUHMASCHINEN G.M.B.H., FRANKFURT AM MAIN, GERMANY. Automatic shoe lasting machine. Ger. patent 745 738, May 19, 1944. Application U 13 549 VII/71 c, dated Sep 15, 1936. In German. 1.50
Drawings.

856-857 PB L 70436 DORTMUND-HOERDER HÜTTENVEREIN A. G., DORTMUND, GERMANY. Process for rolling U-shaped steel sheet piling. Ger. patent 745 739, Apr 25, 1944. Application D 76 341 Ib/7a, dated Oct 14, 1937. Inventor: Maiser, J. In German. 1.50
Drawings.

858-859 PB L 70436 TELEFUNKEN GESELLSCHAFT FÜR DRAHTLOSE TELEGRAPHIE M. B. H., BERLIN. Television receiver. Ger. patent 745 741, Mar 31, 1944. Application T 47 153 VIIIa/21 a[1], dated Jul 10, 1936. Inventor: Wolff, M. In German. 1.50
Drawing.

860-861 PB L 70436 VEREINIGTE GLÜHLAMPEN UND ELEKTRICITÄTS A. G., BUDAPEST, HUNGARY. Production of oxide cathodes. Ger. patent 745 742, Mar 31, 1944. Application V 33 639 VIIIc/21 g, dated Mar 10, 1937. Inventor: Winter, E. In German. 1.50

862-863 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Production of high-viscosity lubricants. Ger. patent 745 743 Apr 25, 1944. Application I 54 143 IVd/23 b, dated Jan 25, 1936. Inventors: Pier, M. and Eisenhut, A. In German. 1.50

864-866 PB L 70436 MEYER, H. (Inventor). Rolling mill for thermoplastics. Ger. patent 745 744, May 26, 1944. Application M 145 719 XII/39 a, dated Jul 29, 1939. In German. 1.50
Drawings.

867-879 PB L 70436 SIEMENS & HALSKE A. G., BERLIN. Punch-card controlled calculating machine. Ger. patent 745 745, May 24, 1944. Application S83 473 IXb/43 a, dated Jan 5, 1928. In German. 1.50
Drawing and wiring diagrams.

880-882 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN AND LÜBECKER MASCHINENBAU GES., LÜBECK, GERMANY. Control for knocker jib steam shovel. Ger. patent 745 744, May 19, 1944. Application A 72 496 V/84 d, dated Feb 15, 1934. Inventors: Engel, W. and Dopp, P. In German. 1.50

883-885 PB L 70436 COLLIERY ENGINEERING LTD., SHEFFIELD, ENGLAND. Multi-stage air-settling machine, (for coal processing). Ger. patent 745 747, Mar 31, 1944. Application C 52 837 VIb/1a, dated May 22, 1937. In German. 1.50
Drawings.

886-887 PB L 70436 C. A. SCHAEFER K. G., HANNOVER, GERMANY. Beacon with two light sources. Ger. patent 745 748, Mar 31, 1944. Application Sch 117 936, dated Mar 11, 1939. Inventor: Bauer, C. In German. 1.50
Drawings.

888-890 PB L 70436 GEWERKSCHAFT VER. KLOSTERBUSCH, HERBEDE, GERMANY. Mining tool for coal and other minerals. Ger. patent 745 749, May 26, 1944. Application G 103 817 VIb/5 b, dated Jul 19, 1941. Inventor: Sonnenschein, K. In German. 1.50
Drawings.

891-893 PB L 70436 C. H. WEISSBACH K. G., CHEMNITZ, GERMANY. Guide arrangement for fabric stretching and drying machines. Ger. patent 745 740, May 19, 1944. Application W 106 487 VII/8 b, dated Nov 1, 1939. Inventor: Sichert, M. In German. 1.50
Drawings.
Supplement to patent 736 189.

894-896 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Azo dye process for cellulose esters. Ger. patent 745 751, May 5, 1944.

Application I 55 758 IVd/8 m, dated Aug 15, 1936. In German. 1.50

897-899 PB L 70436 I. G. FARBENINDUSTRIE A. G., FRANKFURT AM MAIN, GERMANY. Production of porous materials suitable for adsorption or catalytic purposes. Ger. patent 745 752, May 5, 1944. Application I 57 630 IVb/12 g, dated Jul 16, 1933. Inventor: Stowener, F. In German. 1.50

900-902 PB L 70436 WEBB & GALL, NILGIRIS, BRITISH INDIA. Printing plates. Ger. patent 745 753, May 19, 1944. Application W 96 797 IVa/15 b, dated Jun 29, 1935. In German. 1.50

903-905 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES., BERLIN. Semi-automatic control for trolley bus power units. Ger. patent 745 754, May 26, 1944. Application L 100 699 VIIId/20 l, dated Apr 26, 1940. Inventor: Plössl, J. In German. 1.50
Supplement to patent 741 830.

906-907 PB L 70436 ALLGEMEINE ELEKTRICITÄTS GES. BERLIN. Motor drive for tuning high frequency devices. Ger. patent 745 755, Apr 25, 1944. Application I 63 904 VIIIa/21 a^4, dated Feb 24, 1939. Inventor: Forstron, E. In German. 1.50
Drawing.

908-909 PB L 70436 ZIEHL-ABEGG ELEKTRICITÄTS G.M.B.H., BERLIN. Multiple collector ring for D. C. motor for radio-technical purposes. Ger. patent 745 756, Apr 25, 1944. Application Z 21 686 VIIId/21 d^1, dated Apr 15, 1934. In German. 1.50

910-913 PB L 70436 HANS-BODO WILLERS, BERLIN. Electro-mechanical impedance element. Ger. patent 745 757, May 22, 1944. Application I 55 993 VIIIc/21 g, dated Sep 23, 1936. In German. 1.50
Wiring diagrams.

914-915 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Preparation of monoazo dyes. Ger. patent 745 758, May 26, 1944. Application I 59 669 IVd/22 a, dated Nov 21, 1937. Inventor: Knight, A. In German. 1.50

916-917 PB L 70436 IMPERIAL CHEMICAL INDUSTRIES LTD., LONDON, ENGLAND. Preparation of azo dyes. Ger. patent 745 759, May 26, 1944. Application I 58 112 IVd/22 a, dated May 27, 1937. Inventor: Cliffe, W. In German. 1.50

918-922 PB L 70436 MILLER, M. (Inventor). Flat loop knitting machine with auxiliary needles. Ger. patent 745 760, May 19, 1944. Application M 138 259 VII/15 a, dated Aug 13, 1936. In German. 1.50
Drawings.

923-925 PB L 70436 SCHUBERT & SULZER MASCHINENFABRIK A. G., CHEMNITZ, GERMANY. Drive for thread guide rails of flat loop knitting machines. Ger. patent 745 761, May 19, 1944. Application Sch 117 125 VII/25 a, dated Dec 1, 1938. In German. 1.50
Drawings.
Supplement to patent 743 936.

926-932 PB L 70436 MILLER, M. (Inventor). Flat loop knitting machine with automatic double-edge device. Ger. patent 745 762, May 24, 1944. Application M 144 118 VII/25 a, dated Aug 13, 1936. In German. 1.50
Drawings.

933-935 PB L 70436 SCHÖNFELD, P. (Inventor). Process for production of warps with interwoven elastic thread. Ger. patent 745 843, May 19, 1944. Application Sch 118 843 VII/25 a, dated Jul 11, 1939. In German. 1.50
Drawing.
Supplement to patent 688 831.

936-940 PB L 70436 MILLER, M. (Inventor). Production of lengths, heels, and feet of stockings on a flat loop-knitting machine. Ger. patent 745 765, May 22, 1944. Application M 144 117 VII/25 a, dated Aug 13, 1936. In German. 1.50
Drawings.

941-944 PB L 70436 WILDT & CO., LTD., ADELAIDE WORKS, LEICESTER, ENGLAND. Pattern or control device for knitting machines. Ger. patent 745 767, May 22, 1941. Application W 105 482 VII/25 a, dated Apr 13, 1939. In German. 1.50
Drawings.

945-946 PB L 70436 Device for cutting continuous strands of synthetic yarn. Ger. patent 745 768, Dec 1, 1944. Application W 106 566 VII/29 a, dated Feb 20, 1941. In German. 1.50
Drawing.

947-948 PB L 70436 DR. ALEXANDER WACKER GES. FÜR ELEKTROCHEMISCHE INDUSTRIE ET AL MUNICH, GERMANY. Process for coating bandages, etc. with adhesive layers. Ger. patent 745 769, May 19, 1944. Application W 108 795 IXa/30 d, dated Mar 26, 1941. Inventors: Schmitz, H. and Dewald, F. In German. 1.50

949-951 PB L 70436 PENZLER, K. (Inventor). Clamp to prevent hemorrhages in tooth extractions. Ger. patent 745 770, May 19, 1944. Application P 80 497 IXa/30 d, dated Mar 15, 1940. In German. 1.50
Drawings.

952-953 PB L 70436 BUCHANAN, J. (Inventor). Hot water bottle. Ger. patent 745 771, Apr 25, 1944. Application B 184 677 IXa/30 d, dated Sep 20, 1938. In German. 1.50
Drawings.

954-956 PB L 70436 OYSTER, E. (Inventor). Sand-mold machine. Ger. patent 745 772, May 19, 1944. Application O 24 274 VIa/31 b, dated Aug 13, 1939. In German. 1.50

957-961 PB L 70436 CORNING GLASS WORKS, CORNING, NEW YORK. Process and equipment for manufacture of foam glass. Ger. patent 745 773, May 26, 1944. Application C 54 510 VIb/32 b, dated Nov 6, 1938. Inventor: Willis, S. In German. 1.50
Drawings.

962-965 PB L 70436 DEUTSCHE TELEPHONWERKE UND KABEL-INDUSTRIE A. G., BERLIN. Box-type level. Ger. patent 745 774, May 19, 1944. Application D 79 747 IXb/42 c, dated Jan 26, 1939. Inventor: Wilhelmi, H. In German. 1.50

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE

Information on the following patents can be obtained from the U. S. Patent Office, Washington 25, D. C.

The "Groups" appearing after the patent abstracts are based on the Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Executive Office of the President, Bureau of the Budget.

Official Gazette, January 6, 1948

By an instrument recorded in the United States Patent Office on Nov. 4, 1947, the American Chemical Paint Co., Ambler, Pa., has granted to the Government and the People of the United States of America an irrevocable, royalty-free right and license to use the methods and to make and use, but not to sell, the compositions of the following United States Patents relating to "Methods and Compositions for Killing Weeds" and any division, continuation, continuation-in-part, or reissue thereof. The term "People" is to be understood to include sole individuals, firms, corporations, and other business associations and institutions (whether for profit or not).

The American Chemical Paint Co. will, upon request, grant a license on a royalty basis to any responsible party desiring to manufacture and sell the patented compositions of these four patents. Royalty terms are on file with the Register.

PAT. 2,390,941. Methods and compositions for killing weeds. Patented Dec 11, 1945. Group 28-33-81. Reg. No. 8,981.

PAT. 2,394,916. Methods and compositions for killing weeds. Patented Feb 12, 1946. Group 28-33-81. Reg. No. 8,982.

PAT. 2,396,613. Methods and compositions for killing weeds. Patented Mar 12, 1946. Group 28-33-81. Reg. No. 8,983.

PAT. 2,412,810. Methods and compositions for killing weeds. Patented Dec 10, 1946. Group 28-33-81. Reg. No. 8,984.

These four patents provide methods and compositions for permanently killing the roots and tops of such weeds as poison ivy, wild garlic, bindweed, etc. Numerous compositions are set forth in detail in the patents, one example of which is a solution containing trichloro-phenoxy-acetic acid, water, and a wetting, dispersing, and emulsifying agent. The trichloro-phenoxyacetic acid comprises at least .04% of the solution by weight. The compositions may be applied in several ways, the most advantageous and preferred way being by spraying the leaves of the weeds. The compositions penetrate the conducting tissue of the weeds and follow the normal path from the leaves to the roots. The compositions have an accumulative effect on plants so that by spraying half-strength solutions on two occasions, two or three weeks apart, the weed will be killed. It is claimed that these compositions are more effective than those previously used; they may be applied to wide areas at relatively small expense; and will not render the soil sterile. The compositions may be safely handled and are not harmful to human beings or animals.

PAT. 2,013,733. Winding reel for cables. Patented Sept 10, 1935.
An automatic spring-winding reel adapted to take up slack in cords of plugged-in electric appliances to eliminate tangling. The reel is contained within a casing and turns on a bearing sleeve by means of a helical spring, allowing the cord to be extended or taken up as the iron, for instance, is moved back and forth, or to be set for a predetermined extension. One opening in the casing receives the plug-in end of the cord, another opening guides the cord of the appliance. A spring clip permits the casing to be detachably fastened to the edge of a table or other suitable support. (Owner) Claude M. Murphy, R. R. 1, Elk, Wash. Groups 35-69; 36-21. Reg. No. 8,985.

PAT. 2,427,698. Welding machine. Patented Sept 23, 1947. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757).
This invention relates to a carriage for a welding machine which can be used with or without tracks and spaced as desired from the work. A carriage, mounted on four motor-driven wheels, carries a casing which supports the welding head. An elongated member has attached to it a guide arm mounted on rollers and pivotally attached to the casing by links. On the right side of casing are two casters so mounted that they may be held horizontally in inoperative position or vertically in operative position. In operation, the device is placed on the deck, the casters placed in operative position, raising the two wheels on one side of carriage off the deck, and the guide arm set at an angle to cause the device to move toward the work. By use of casters, instead of all four wheels, the device can be turned around curves and corners. On tracks, casters are moved to inoperative position. (Owner) Louis Trombetta, 3667 Paulding Ave., Bronx 67, N. Y. Groups 35-42; 36-19. Reg. No. 8,986.

PAT. 2,425,547. Garment hanger. Patented Aug 12, 1947.
A metallic or plastic coat hanger, made of hollow tubing for holding moth-proofing materials. Openings are provided in tubing wall through which the moth-proofing vapors escape to the garment. The hanger is sloping T-shaped and has an attached hook for hanging on a rod. It may be used alone as a coat hanger or may have a straight tubular skirt or trouser bar inserted between and frictionally engaging the two ends so that the tubular passage for moth-proofing material is made continuous. When skirt or trouser support is removed, ends of the tubular passage are closed with fitted plugs. (Owner) Mrs. Hazel Marie Lipsitz, 5036 Sheridan Rd., Chicago 40, Ill. Groups 33-73; 39-81; 40. Reg. No. 8,987.

PAT. 2,264,664. Yarn holder. Patented Dec 2, 1941.
A single sheet of transparent material, such as celluloid, is rolled to form a cylindrical holder long enough to accommodate knitting needles. It is carried horizontally by a handle of woven cords fastened at each end of cylinder. Discs fit into ends of holder. A cord laces edges of the cylindrical holder together and, at each end, fastens into an aperture in the disc, to form a hinge enabling the end to be swung open for insertion of yarn balls. Each disc is held in place by a cord tied at the top to the cylinder. Along upper side of the cylinder are holes through which the ends of yarn are pulled. (Owner) Mrs. Hazel Marie Lipsitz, 5036 Sheridan Rd., Chicago 40, Ill. Groups 39-81; 40. Reg. No. 8,988.

PAT. 2,389,468. Fastener for duet forms and the like. Patented Nov 20, 1945. Groups 33-73; 34-95. Reg. No. 8,989.

PAT. 2,396,030. Fastener for paper forms and the like. Patented Mar 5, 1946. Groups 33-73; 34-95. Reg. No. 8990.

These two patents show fasteners (stamped from sheet

metal) for use in constructing ducts made of sheets of paperboard, fiberboard, asbestos, or other material. The fasteners (several embodiments are shown) are used to connect the side walls of a duct, as well as adjacent ends of duct sections. The fasteners have outwardly struck pointed tongues or prongs which are clinched after penetrating the walls of the duct. In Pat. No. 2,389,468 the fasteners include means which will also seal, cover, and protect the joints of the ducts. One embodiment in this patent shows a plurality of angle plates (with prongs) slidably carried within an angled edging strip. The plates may connect the side walls of one or more sections of the duct with the edging strip covering the joints along the duct. Another form of fastener will connect the ends of adjacent duct sections and also enclose the joint. (Owner) Augustus P. Terry, 2405 California St., Berkeley 3, Calif.

PAT. 2,420,945. Combination toolholder and steady arm. Patented May 20, 1947.
A combined tool holder and steady arm designed to eliminate the steady rest and follow rest usually bolted to the lathe carriages. A stem supports in its head a cutting tool. A work support curved throughout an arc exceeding 180 degrees is attachable to either side of the head. Opening in the work support is large enough to permit it to slip over the work. Screws are threaded in the work support so that their inner ends may be adjusted to engage the work. Modifications are shown. (Owner) Roland C. Gaylord, RFD 1, Plymouth, N. C. Group 35-43-53. Reg. No. 8,991.

PAT. 2,428,685. Automatic self-flushing commode. Patented Oct 7, 1947.
The invention comprises, an outwardly arched operating arm or lever, one end of which is fastened to the upper side of the seat cover, the other end pivotally connected to a valve in the water pipe. Raising and lowering the seat cover operates the valve, respectively filling the storage compartment or flushing the bowl, thus eliminating hand flushing. (Owner) Noah Shepard, Estancia Matilde Bayamon, P. O. Box 3667, Santurce, San Juan, Puerto Rico. Group 32-61. Reg. No. 8,992.

DES. PAT. 147,512. Bracelet. Patented Sep 16, 1947.
An ornamental design for a bracelet. (Owner) Lena M. Smith, Star Route Box 52A, Alma, Calif. Groups 39-71; 34-81. Reg. No. 8,993.

PAT. 2,420,973. Cultivator plow. Patented May 20, 1947.
A plow mechanism for cultivating several rows or lightly plowing wide areas has a plurality of independent cultivator units mounted in gang relationship and supported by a transverse bar of the cultivator frame. Each unit comprises a standard for attachment to the bar and a rearwardly extending bracket angularly pivoted to the lower end of the standard, with a pair of discs carried by the bracket. The bracket is normally yieldingly urged forward and downward by spring means with a stop on the bracket limiting such movement. The bracket of each unit is self-adjusting independently of the other units so that all discs will automatically follow the contour of a field and ride over obstructions, enabling the total area to be cultivated to substantially uniform depth. The space between each pair of discs may be adjusted in either spaced or angular relation with respect to each other. (Owner) Christian Petersen. Address correspondence to C. Hercus Just, Patent Counsel, The United States Time Corporation, Waterbury 91, Conn. Group 35-22. Reg. No. 8,994.

PAT. 2,243,915. Hand truck. Patented Jun 3, 1941.
A hand truck- barrow for moving heavy or bulky objects, especially up or down stairs. The forward end is supported by wheels and has a forward and upward projecting plate used for picking up heavy objects. Beneath the intermediate portion of the barrow is a swinging frame with three pairs of small wheels, forming a rolling support on the level and enabling the truck-barrow, when ascending or descending stairs, to be tilted on a fulcrum consituted by the pins or bolts which connect the swinging frame to the truck frame. Handles are pivotally connected to be adjusted vertically in different angular positions. (Owner) Herbert B. Mueller, c/o Mueller Dance Floor Co., 5300 Sunset Blvd., Los Angeles, Calif. Group 35-63. Reg. No. 8,995.

PAT. 2,427,804. Lever lock. Patented Sept 23, 1947.
A segmental type lock for locking levers in various positions. A tubular sleeve having two latches is turnable on lever surrounded by a coil spring. The segment has a number of slots to receive the two latches when sleeve is turned for locking lever in different positions. (Owner) Herbert B. Mueller, c/o Mueller Dance Floor Co., 5300 Sunset Blvd., Los Angeles, Calif. Group 33-69. Reg. No. 8,996.

The following eight patents are owned by Harry J. Nichols, Point Pleasant, N. J., and are available for licensing only. Group 36-61-62.

PAT. 2,176,680. Communication system. (Facsimile system). Patented Oct 17, 1939. Reg. No. 8,997.

PAT. 2,258,124. Communication system. (Facsimile system). Patented Oct 7, 1941. Reg. No. 8,998.

PAT. 2,111,153. Communication system. (Synchronizing system). Patented Mar 15, 1938. Reg. No. 8,999.

PAT. 2,150,239. Synchronizing system. Patented Mar 14, 1939. Reg. No. 9,000.

PAT. 2,172,290. Method and apparatus for synchronizing. Patented Sept 5, 1939. Reg. No. 9,001.

PAT. 2,174,704. Communication system (Synchronizing system). Patented Oct 3, 1939. Reg. No. 9,002.

PAT. 2,182,000. Synchronizing system. Patented Dec 5, 1939. Reg. No. 9,003.

PAT. 2,329,077. Communication system. (Synchronizing system). Patented Sept 7, 1943. Reg. No. 9,004.

These eight patents refer to various aspects in the synchronization of television, facsimile and like systems in which the apparatus of a sending station may be remotely located from that of a receiving station. In general, the synchronizing means is a periodic impulse transmitted by the sending station to a receiving station in such a manner that the scanning discs at both stations are brought into synchronization. A typical arrangement is described in Patent 2,172,290; A synchronizing hole is centered in the blank sector of the usual scanning disc having a spiral row of scanning holes, the disc being employed in combination with an image-transmitting apparatus. In association with the disc and image-transmitting apparatus is an impulse-transmitting device which includes a source of light having a shield slit on that portion tranversed by the synchronizing hole. Arranged on one side of the disc is an auxiliary photo-electric cell which is affected by the beam passing through the spiral row and through the

synchronizing hole as well. A similar scanning disc is used at the receiving station. However, the blank sector includes a "synchronizing arc" composed of a series of "windows," graduated in size, the function of which is to accelerate or retard the speed of the disc according to the timing of the signal received. Signals transmitted by the sending station are simultaneously received as flashes by a television lamp at the receiving station. If the disc at the receiving station is relatively opposite the slit as the lamp flashes, there is no effect on the photo-electric cell since it is masked by the blank sector of the disc. Should the motor which rotates the disc at the sending station increase in speed, a small window in the disc at the receiving station comes into position at the instant the lamp flashes. The photo-electric cell acts to retard the speed of the motor for an instant so that the two discs are again brought into synchronization. If the large window of the scanning disc is brought into position, the photo-electric cell acts to increase the speed of the motor so that the discs are again brought into correct synchronization. Other arrangements are described in the other patents.

PAT. 2,427,358. Pneumatically operated marking machine. Patented Sept 16, 1947.
(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757).
A semi-automatic machine for stamping identification marks and symbols on metal parts, adjustable to mark different sizes and shapes. A pneumatic cylinder is provided in housing mounted on base of device. A cylindrical shell in the cylinder has a slidable hammer within and a coil spring between hammer and piston end of shell. A striker rod extends below the shell. When work piece is in position for stamping, the foot-operated three-way valve is depressed and compressed air admitted to pneumatic cylinder, moving downward the piston and entire mechanism below it until the work piece is engaged by the stamp. A spring means returns the mechanism to original position. Stamping movement is uniform and rapid. Modifications allow manual operation. (Owner) Stephen Kovach, 162-16 59th Ave., Flushing, N. Y. Groups 35-69; 36-21.
Reg. No. 9,005.

PAT. 2,426,756. Bottle carrier.
Patented Sept 2, 1947.
This carrier for carrying two rows of beverage bottles by their necks is made of a single sheet of stamped metal and provided with a handle. Two rows of three neck-engaging apertures are spaced in the carrier to fit over bottles while still standing in the shell (holding twenty-four) in which they are usually delivered to retail establishments. Adjacent the entrance to each aperture are up-struck integrally formed cam guide members, slightly resilient, which engaged the head of the bottle and tend to force each bottle into the aperture when the carrier is lifted. A wider aperture may interconnect two opposite neck-engaging apertures to facilitate placement and removal of bottles. The carrier is tilted to engage three bottles on one side, then in the opposite direction to engage three on the opposite side. Since the handle rests between the heads of the bottles, four carriers may be applied to a shell and one shell stacked upon another until required for use. (Owner) R. M. Ulrich. Address correspondence to Alis W. Graf, Attorney, 120 South La Salle St., Chicago 3, Ill. Groups 33-73; 40. Reg. No. 9,006.

PAT. 2,333,064. Air mask. Patented Oct 26, 1943.
This air mask is particularly useful for factory workers or painters using spraying machines since it leaves the eyes, nose, and mouth exposed yet effectively prevents inhalation of noxious fumes, dust, smoke, etc. A suitable face shield may be incorporated into the mask when it is to be used by welders or burners. The mask of inverted U-shape, with a soft flexible base, fits tightly around the forehead and cheeks. Air tubes (with nozzles) connected to a supply of compressed air are incorporated into the mask and discharge streams of air from above the forehead and from opposite sides of the face substantially in layers to form a shield which will prevent fumes, etc., from reaching the face. A plurality of air-driven fans are mounted in open recesses around the outside of the mask to cause radiation of outside streams of air in various directions. (Owner) William D. Sullivan, 2384 26th St., Astoria 5, Long Island, N. Y. Group 36-42-53-61-69-89.
Reg. No. 9,007.

PAT. 2,426,726. Life preserving bathing suit.
Patented Sept 2, 1947.
A bathing suit, particularly for a child, provided with inflatable containers to keep the wearer afloat. A series of parallel pockets extend around the body and support pouches or containers of rubber or like distensible material which are inflated from a tube at side of suit. The tube is connected to each pouch by means of a water- and air-tight joint. After the containers are inflated and the valve closed, the tube is folded in pocket at front of suit. (Owner) James M. Combs. Address correspondence to William Isler, Attorney, 416 Leader Bldg., Cleveland 14, Ohio. Groups 22-44; 23-39; 30-51.
Reg. No. 9,008.

PAT. 2,219,160. Combined bulldozer and ripper.
Patented Oct 22, 1940.
A conventional type of bulldozer blade is provided with spaced hinged teeth on one side which project downwardly below the lower edge of the blade. Upon

movement of the blade in one direction it will function in the usual manner without interference from the teeth. Upon movement in the opposite direction the teeth will function as a ripper independently of the blade. The teeth are each hinged to individual U-shaped brackets on a horizontal bar secured to the blade. A heel-like abutment on the back of each tooth holds them in proper operative position against the blade. The teeth may be pivoted upwardly and held against the top of the blade by individual hinged U-shaped straps when not in use; or they may remain projecting downwardly and simply pivot and trail the blade. (Owner) Loyd O. White, Box 386, Thousand Oaks, Calif. Group 35-31-42. Reg. No. 9,009.

PAT. 2,414,321. Bath and massage brush. Patented Jan 14, 1947.
A brush which, with handle attached, may be used to conveniently wash or massage one's own back or other parts of the body. A flexible rubber brush head, having a multiplicity of integral massaging knobs on its face, is connected for universal movement to the end of a curved stem of a handle so that in use the head will follow the contour of the body. When desired, the head may be readily detached from the handle and used alone. A cloth for washing or powdering the body may be removably attached to the head. The back of the brush head converges to form a central conical boss. A spherical socket is formed in the boss for the reception of a ball on one end of the handle. (Owner) Wilbur Miller, 42 North Marion Ave., Pasadena 4, Calif. Groups 30-51; 39-22. Reg. No. 9,010.

PAT. 2,428,651. Adjustable mounting for steerable wheel spindles. Patented Oct 7, 1947.
Vehicle wheel spindle which has a C-shaped yoke for pivotal connection to the end of an axle is easily adjusted to take up wear or play by simply tightening the pivot pin. Tapered bearing cups and bearings having tapered cages are fitted in recesses in the top and bottom of the axle. Each cage has a flange on its top. The tops of the cages project out of the recesses with the flanges respectively engaging the inner surfaces of the arms of the yoke. The pivot pin has a threaded lower end and an enlarged upper end providing a step which bears against the flange on the top bearing. When the pin is tightened the bearing cages are wedgingly forced into the bearing cups in the recesses. (Owner) W. W. Buese, 8321 Ruskin Ave., St. Louis 15, Mo. Group 38-31. Reg. No. 9,011.

PAT. 2,429,362. Combined cabinet and extensible table. Patented Oct 21, 1947.
The lower section is a cabinet, the upper section a table or work bench which may be raised or lowered, and expanded by drop leaves. The cabinet has a large central drawer and smaller side drawers, with several compartments, sliding from either end. The table top is so mounted at the corners on vertical posts (which are slidably received in pockets within end portions of the cabinet) and with cross rods and coil springs underneath that the top may be raised and releasably secured at a convenient height. Panels hinged to the top for vertical swinging fasten into sockets in the corner posts as extra support for the top when in use. A drop leaf hinged at each side of the table top is supported in raised position by brackets hinged to the vertical posts. (Owner) James D. McDowell, 194 Neff St., Humberstone, Ontario, Canada. Group 25-11-14. Reg. No. 9,012.

PAT. 2,427,353. Clamping tool. Patented Sept 16, 1947.
A tool particularly useful for closing the gap of split piston rings which are to be mounted on a spud and re-turned on an engine lathe. It is easily adjusted for different size rings. The body of the tool, which is substantially Y-shape, has the legs of a U-shaped spring wire adjustably and releasably connected to the arms of the Y. A spindle threaded into the bore of the stem of the Y has a handle on its top end and its lower end engaging a bifurcated member which is vertically slidable in an enlarged bore. An arcuate compression member connected to the lower end of the bifurcated member slides into and out of a semi-circular recess formed between the arms of the Y when the handle is turned. Provision is made for locking the spindle to prevent accidental rotation. A piston ring or other circular or elliptical shaped member may be clamped between the compression member and the loop of the wire. (Owner) Adrian Cagesteyn, 15 Poplar St., Jersey City 7, N. J. Group 33-52. Reg. No. 9,013.

PAT. 2,429,138. Musical string instrument. Patented Oct 14, 1947.
An attachment for a guiter, mandolin, or other key-controlled musical string instrument, designed to substitute keyboard operation for control and plucking of strings by the fingers. The attachment includes a keyboard and a string-plucking device consisting of elastic actuating members which contact the strings at the frets and pluck the strings at the sound box. The keyboard is supported by the player's shoulder and has a chin-controlled lever for adjusting the volume. The keys are operated by the fingers of both hands, producing both melody and accompaniment. (Owner) Robert Ruf, 2864 West 97th Place, Chicago 42, Ill. Group 39-39. Reg. No. 9,014.

PAT. 2,429,450. Torque measuring screw driver. Patented Oct 21, 1947.
The handle and shank of this screwdriver are connected in a manner so that the shank will twist to permit relative turning movement of the shank and

handle. Twist of the shank determines the amount of tension to be applied to a screw so that all screws may be tightened alike. A hollow handle surrounds the outer end of the shank. The end of an integral flat rod-like shank extension (which will twist) is welded to the closed outer end of the handle. The other end of the shank is bladed for engaging a screw. The shank protrudes through a pair of heads at the front end of the handle. One head is welded to the end of the handle while the other head is keyed to the shank for turning movement therewith. Graduations on both heads may be read to determine the amount of tension to apply to a screw during a working operation. The graduations are adapted to be read with a proper chart which is furnished with each tool. (Owner) Hugh W. Bunting, P. O. Box 466, Liberal, Kans. Group 33-82. Reg. No. 9,015.

PAT. 2,428,794. Flying machine.
Patented Oct 14, 1947.
Helicopter type of flying machine for one man. It comprises an upright bulbous cabin having a vertical reduced neck portion with a rotor mounted thereon and a transparent dome. A pilot sits on a motor in the bottom of the cabin with the upper portion of his body in the neck portion and his head in the dome above radiating propeller blades which are connected to a ring of the rotor. A gear integral with the ring meshes with a gear on the shaft of the motor to propel the machine. A T-shaped control lever mounted for universal swinging movement inside the front of the cabin is swivelly connected to the inner ends of three horizontal rods which are longitudinally slidable through the side of the cabin. A disc for receiving "wash" from the propeller for guiding the craft is swivelly connected to the outer ends of the rods. The lever may be manipulated to shift the disc about horizontal and vertical axes to cause the machine to fly in any direction. (Co-owners) Ali J. Piumedoro and Joseph Silin. Address correspondence to Ali J. Piumedoro, C/o Handy Tie Co., 652 E. 6th St., South Boston 27, Mass. Group 37-21. Reg. No. 9,016.

PAT. 2,373,585. Bolt anchor.
Patented Apr 10, 1945.
A bolt anchor adapted to be inserted into a wall cavity and expanded to firmly hold a member bolted to a wall. The device comprises an expansible cylindrical housing and a bolt threaded into a longitudinally slidable nut within the housing. The housing is formed of a plurality of fingers which are loosely held together as a unit by a collar around one end. The outer ends of the fingers are bent laterally and inwardly to constitute a seat for a coil spring. The spring normally urges the nut (which has flat inclined surfaces) into wedging engagement with inclined inner walls of the housing to expand the fingers. To contract the fingers, the nut is slid inwardly against the spring. (Owner) Vincent Mauceini. Address correspondence to Joseph P. Padlon, attorney, 120 Broadway, New York 5, N. Y. Group 33-91. Reg. No. 9,017.

PAT. 2,427,301. Buck-rake loader attachment for tractors.
Patented Sept 9, 1947.
A buck-rake loader attachment for tractors which may be automatically raised or lowered. The apparatus comprises a wheeled carriage with a tower rising therefrom supporting a hydraulically operated lifting jack. A runner is vertically movable on the tower and carries a tilting buck-rake head. The head and runner are connected by a fluid-operated tilting device regulated through valves manually operated by the operator of the tractor. (Owner) M. E. Puim, c/o Puim Welding Service, 2214 Hellings Ave., Richmond, Calif. Group 35-21. Reg. No. 9,018.

PAT. 2,140,224. Roller skate attachment.
Patented Dec 13, 1938.
A detachable device for a roller skate to illuminate the floor while dancing or skating in exhibitions. A U-shaped stirrup with spring clips is attached to underside of foot plate of skate midway between front and rear rollers and supports a flashlight arrangement to throw a light upon the floor. The battery may be replaced without removing attachment from the skate. (Owner) Mihaly Galgoczy, 3197 East 135 St., Cleveland 20, Ohio. Groups 39-49; 40. Reg. No. 9,019.

PAT. 2,260,655. Time controlled announciator.
Patented Oct 28, 1941.
An announciator which facilitates making a plurality of different announcements contained on a record at pre-selected time intervals. It may be continuously operated and repeat the announcements. A carriage carrying a raised pick-up head having a needle is continuously moved inwardly across a record until all announcements have been made by a cam projection on the carriage traveling in a spiral cam groove in a continuously rotating cylinder driven by the hour hand shaft of a clock. When the cam reaches the inner end of the groove, it enters a straight return groove in the cylinder to permit a spring (tensioned by inward movement of the carriage) to rapidly return the carriage to its starting position. The cylinder projects into an opending in the carriage head to permit the carriage to slide freely along the rotating cylinder. The minute hand shaft of the clock rotates a switch arm which periodically contacts and rides over spaced electrical contacts on a disc to energize and de-energize a motor and a solenoid. The motor controls rotation of the turntable, and the solenoid controls lowering and raising the pick-up head onto and off the record. (Owner) F. A. Barr, 134 39 226th St., Laurelton 13, L. I., N. Y. Group 36-19-61. Reg. No. 9,020.

PB L 81500. HOLLOWAY, O. WILLARD and ISAAC, OLIVER B. Classified list of OTS printed reports: A list of reports on German and Japanese technology prepared by American investigators which are available in printed form from the Office of Technical Services. Oct 1947. 59 p. Price: Photostat-$2.25 Microfilm-$1.75 Mimeo-75¢
This list catalogs about 1,800 reports on German technology prepared by American investigators who have searched German firms and laboratories over the past two years for information of value to American business and industry. Unlike most OTS reports, which are available only in photostat or microfilm, the reports listed here are available in mimeograph, multilith, or other printed form. Included are the bulk of the reports received from the U. S. Army's Field Information Agency, Technical, the Combined Intelligence Objectives Agency, and the Joint Intelligence Objectives Agency. The list refers the reader to the page number of the Bibliography of Scientific and Industrial Reports where abstracts of reports are found. The publication is arranged in three parts: (1) Classified list of reports giving author, title, date, pages, price, PB number, and volume and page reference to the Bibliography; (2) Series list naming the series included with reference to the PB number; (3) An index from PB number to the page number in the publication where the complete entry may be found.

PB L 60908. DE BRUYNE, N. A. and RAYNOR, C. A. A. Manufacture of Desmodure and Desmophens. (Interrogation of Professor Otto Bayer at Beltane Schools, Wimbleton) (BIOS Final Rept 920, Item 22; Interrogation Rept 345) Jul 1946. 4 p. Price: Mimeo-25¢
Professor Bayer, head of the Research Laboratory of I. G. Leverkusen was interrogated on July 11, 1946. This report contains some information on the following: (1) Difficulties encountered in the use of Desmodur and Desmophen for bonding purposes; (2) manufacture of Desmodur T by the phosgenation of tolylenediamine hydrochloride; (3) conversion of Desmodur T to Desmodur TH; and (4) molding powders from diisocyanate products.

PB L 80341. GETZINGER, PHILIP L. Production of mixed steel in Germany. (FIAT Final Rept 1165) May 1947. 6 p. Price: Mimeo-25¢
This report describes the manufacture of the so-called mixed steel, which process is essentially the mixing in the ladle of suitable amounts of open hearth or converter steel with electric furnace steel to produce an end product of specified analysis and physical properties.

PB L 85767. I. G. FARBENINDUSTRIE A. G. Igetex, synthetic latex supplement. May 1943. 17 p. Price: Photostat-$1.75 Microfilm-$1.75 Mimeo-50¢
This document is a translation of a German report prepared at I. G. Farbenindustrie A. G., Frankfurt on the Main, May 1943. The report deals with the following subjects: (1) Behavior of Igetex vulcanizates in cold; (2) dispersion agent consumption of several fillers and other solid latex addends; (3) emulsification of liquid auxiliary products for Igetex mixes; (4) thickening of Igetex mixes; and (5) heat sensitization of Igetex S, SS, and N with Igevin N 50 ca. 50% in water. Several tables are included.

PB L 80410. KING, H. R. and QUICK, B. J. Investigation of the slinging stowing machine in coal mines in the Ruhr district of Germany. (BIOS Final Rept 1439, Item 30, 31) 1946. 26 p. Price: Mimeo-50¢
The machine is called the "Kreiselschleuder" (centrifugal slinger) or "Schleuderversatz" (slinging stower). Most of the machines have been made by Messrs. Fröhlich and Klüpfel, but in a number of cases they have been modified at the pits. The machines can only be used on relatively flat faces and will only work in conjunction with a rubber belt face conveyer. All machines seen were driven electrically, but it was stated that machines are in use which have a compressed air drive. The slinging stowers, as operated at the Friederick Heinrich Mine with 4 feet seam and at the Rheinpreussen (Pattenberg) Mine with a 6'6" seam, are described in detail with illustrations and methods of operation. A comparison of packing cost in seam 15 (President) with Briedan pneumatic machine and slinging machine is given in tabulated form.

PB L 19584-T. QUIG, J. B., tr. Report of the plant processes and development work of the cellulose acetate department of the I. G., Dormagen Plant. (Translation of PB 19584) Mar 1945. 10 p. Price: Photostat-$1.75 Microfilm-$1.75 Mimeo-50¢
The original German document (PB 19584) was abstracted in v. 2, p. 629, this Bibliography.

PB L 75819. HEDPATH, E. and others. Television development and application in Germany. (BIOS Final Rept 867, Item 1, 7, 9) Feb-Mar 1946. 79 p. Price: Photostat-$2.25 Microfilm-$1.75 Mimeo-$2.25
This report is based upon information obtained during an investigation of the development and application of television and associated equipment in Germany. During the war research and development of television equipment as such was virtually at a standstill, although the public television service was maintained in operation until well into 1943. As disclosed in the detailed technical reports from nineteen factories visited, television technique and equipment suitably modified, were applied to war projects and fairly extensive development work was carried on in this field. Thirteen diagrams are included.

PB L 85128. U. S. OFFICE OF TECHNICAL SERVICES. Soldering small brass parts. (Tech Advisory Service Rept 58.33) Oct 1947. 2 p. Price: Photostat-$1.75 Microfilm-$1.75 Mimeo-10¢
This TAS bulletin lists the properties of six different solders and states that failure in soldering can be greatly reduced by their use. It states further that all solders listed, in order to make a good bond, must be heated sufficiently that all of the metal is liquid, i. e. heated to the higher or complete liquid temperature mentioned, and be allowed to cool undisturbed until the lower or complete solidification temperature is reached.

PB L 80577. WINTER, J. K. and others. Abrasive manufacture in Germany. (BIOS Final Rept 1406, Item 21) May 1946. 33 p. Price: Photostat-$2.25 Microfilm-$1.75 Mimeo-$1.00
In the course of the abrasive investigation the five principal abrasive factories in the British, American and French Zones were visited and a report on each is given. In addition, brief visits were made to a number of the principal grinding wheel factories, and their views on the quality and uses of the various abrasives which had been available to them, were obtained. A general report of this information is also presented.

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